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ABSTRACT

This evaluation of the impact of the text, "Our Economy: How It Works," on student attitudes and values reports the findings of a study of ninth grade students in three cities: Cedar Rapids, Iowa; Durango, Colorado; and Minneapolis, Minnesota conducted over portions of the 1984-85 school year. Economics Values Inventory (EVI), the design for the evaluation, specified an initial measurement of the same youths' economic values. The central finding was that, for the main comparison group, the text had a measurable impact on student values and attitudes. While both users and non-users had essentially similar EVI scale means at the pretest, their attitudes significantly differed at the post-test, as measured by a number of scales. Specifically, text users were (1) more supportive of the American economic system, (2) showed more trust in business, (3) felt a greater sense of personal economic efficacy, (4) were more likely to feel that the treatment of workers is fair, and (5) were less likely to express disagreement with the economic status quo. As in the earlier phase of the research, extent of economic knowledge continued to be the strongest predictor of student attitude differences on the EVI. Appendices include the EVI, statistical tables, the senior high school version of the EVI, and student Posttest Questionnaire with item means and response frequencies. (LH)

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An Evaluation of the Impact on Attitudes and Values of the Text, *Our Economy: How It Works*

NORC Project 4420

An Evaluation of the Impact on Attitudes and Values of the Text, *Our Economy: How It Works*

by

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EXECUTIVE SUMMARY

"An Evaluation of the Impact on Attitudes and Values of the Text, *Our Economy: How It Works*," reports the findings of a study conducted by NORC, A Social Science Research Center, University of Chicago, for the Foundation for Teaching Economics. The study was conducted over portions of the 1984-1985 school year, among 9th grade students in three cities: Cedar Rapids, Iowa; Durango, Colorado; and Minneapolis, Minnesota. Ten schools and over 2,000 students and their teachers participated.

Study Design

In earlier work (1983-1984) for the Foundation for Teaching Economics, NORC developed an "Economics Values Inventory" (EVI), an original measure of economic attitudes consisting of eight multi-item scales suitable for use with junior high school age youth. In the present research, the EVI was used to measure and interpret changes in economic attitudes over an instructional period in groups of junior high school students who had studied *Our Economy*, who had received no economics instruction, or who had used alternative economics instructional materials. The design for the evaluation specified an initial measurement, or pretest, of students' economic values, an instructional period (during which some students but not others received economics instruction), and a Posttest measurement of the same youths' economic values. The primary purpose of the evaluation was to assess the attitudinal impact of *Our Economy*. Additional purposes of the study were to reassess the performance of the EVI, and to examine student, teacher, and classroom characteristics that might affect the impact of the text.

Research Results

The Central Finding

The central finding of the evaluation is that, for the main comparison group (that of users of *Our Economy* as contrasted to those not undergoing economics instruction), the text has a measurable impact on student values and attitudes. While both users and non-users had essentially similar EVI scale means at the Pretest, their attitudes significantly differed at the Posttest, as measured by a number of scales. Specifically, text users were:

- more supportive of the American economic system scale (Scale 1)
- showed more trust in business (Scale 2)
- felt a greater sense of personal economic efficacy (Scale 3)
- were more likely to feel that the treatment of workers is fair (Scale 7)
- were less likely to express disagreement with the economic status quo (Scale 8)

The statistically significant differences measured by the EVI at the Posttest ranged, on the six units of a 1-7 agree-disagree scale, from .14 to .27. (Translated into a Scholastic Aptitude Test 200-800 metric, a difference of .2 on an EVI scale could be likened to a difference of 20 SAT points.) Impacts in this range are modest in absolute terms but are, we believe, noteworthy indeed as attitudinal impacts of a textbook. We find these results especially impressive in light of the fact that *Our Economy* makes no overt attempt to influence attitudes, choosing instead to counsel informed thoughtfulness on all controversial economics values issues.

Additional Findings

While the central question of the evaluation concerned the values and attitudes impact of *Our Economy*, the principal research measure--the Economics Values Inventory--was also reappraised. The findings gave additional confirmation of the reliability and validity of the EVI scales, which continued to be sensitive to a wide range of meaningful attitude differences, for this new, and considerably larger, research sample. Some new attitude items were generated for this phase of the research, chiefly in the area of government regulation of the economy. Students at this age and grade did not, however, appear to have yet found this topic area greatly meaningful.

Finally, data were gathered concerning a number of characteristics associated with differences in economic attitudes, and special attention was given to student, teacher and classroom characteristics that might affect the impact of the text.

Extent of economic knowledge continued, as in the earlier phase of the research, to be the strongest predictor of student attitude differences on the EVI scales. This factor was found to explain some, but not all, of the instructional impact on attitudes of *Our Economy*. Some systematic differences were found by race (blacks and whites differed significantly in their economic attitudes on two of the eight EVI scales). Systematic and statistically significant male-female differences were found on the scales.

Gender differences for the slightly older group utilized in this phase of the research were far more dramatic than the differences seen previously.

Collateral data were also collected on student socioeconomic status, level of interest in public affairs, political orientation, attributional tendencies, and ranking of personal information sources. In addition, a teacher questionnaire collected information from the economics teachers of the student respondents. The teachers took the EVI, and their scale scores were compared to those of their students. Teacher background information was gathered and reported. Finally, teachers were asked to evaluate *Our Economy* on a number of dimensions, including whether it exhibited a valuational bias, and its effectiveness in transmitting economic knowledge. One hundred percent of the teachers reported that the materials in the text were presented without bias, and teachers rated the text as highly effective in transmitting economic knowledge.

An Evaluation of the Impact on Attitudes and Values of the Text, *Our Economy: How It Works*

1. Background and Purposes of the Study

This is the report on the second phase of a study to evaluate the impact upon economic attitudes and values of the junior high school text, *Our Economy*. The study attempted to measure and interpret changes in economic attitudes over an instructional period in groups of junior high school students who had studied *Our Economy*, who had received no economics instruction, or who had used alternative economics instructional materials. In addition, the study examined student, teacher and classroom characteristics that might affect the impact of the text. A final goal of the research was to continue to examine and strengthen the performance of the indicator used to measure economic attitudes.

A useful starting point may be to briefly review the first phase of the study and to thereby obtain a point of entry into the purposes of Phase II of the evaluation.

A. The Phase I Research

In Phase I, an original measure of economic attitudes was developed, the Economics Values Inventory or "EVI" (O'Brien and Ingels, 1984; O'Brien and Ingels, 1985). The EVI (see Appendixes 1-2) consists of eight moderately reliable multi-item scales covering a broad range of topics in economics, including attitudes toward business, labor unions, the government's role in the economy, and others. The initial task of development of the individual economic attitude items that make up the scales was informed by the contents of *Our Economy*. However, care was taken to ensure that, while suitable for purposes of evaluation of this text, the EVI captured a range of attitudes appropriate to other typical economics textbooks for junior and senior high school students as well, and to certain non-textbook contexts.

The primary thrust of the first phase of the research was to develop reliable and valid multi-item economics attitude scales appropriate, in particular, for use with junior high school age youth. (For details of the design, sample composition, research process, and findings of Phase I, see O'Brien and Ingels, 1984). Subsidiary purposes were (1) to test tentative hypotheses about factors associated with economic attitude differences and change (of interest both as validity indicators for the EVI and as a preview of the Phase II research) and (2) to gain insight into the content and structure of youth attitudes for the respondent population.

B. The Economics Values Inventory and Students' Opinions

Figure 1 presents the Economics Values Inventory, the measure of youths' economic attitudes developed in Phase I, and the primary measurement tool used in the current Phase II evaluation of the *Our Economy*. The figure also presents the mean scale scores of the student respondents in the Phase I study. Before continuing in this report with the details and findings of the evaluation, we turn to a review of the scales and items that make up the EVI, and the direction of student opinion as measured by it in the Phase IPilot group and the current Phase II sample at the time of the Pretest.

Although the Phase I study was not based on a representative sample (which would have been ill-suited to its design requirements), it is worth taking note of the content of respondent attitudes as evidenced by mean scores on the EVI scales--for it is all too easy, in focusing on individual scales, to lose sight of how they relate to each other and form an overall pattern of values.

Given that the Phase I Pilot and the Phase II Pretest samples consisted of different students, with strikingly different racial and socioeconomic backgrounds, the overall means are striking in their similarity. The two groups will form a point of comparison, as we proceed, seriatim, through the EVI scales.

Scale 1 evidences support for the prevailing American economic system, a "free enterprise system" or "mixed market economy" in which private enterprises have a large role. The emphasis of the scale is on the economy in its productive function, and affirms profits, proper use of limited resources, hard work, occupational freedom, competition, division of labor, and savings. Of all the scales, students have the strongest affirmative feelings about this one. On a 1-to-7 scale where 1 = strongly disagree and 7 = strongly agree, the Phase I Pilot sample had a mean of 5.4 on Scale 1, while the Phase II group had a mean of 5.6

Scale 2 focuses on the image of American business, and shows a "trust in business" value. It affirms the public responsibility of business, the desirability of a greater voice for the business community in government, and the desirability of lower corporate taxes. It views advertising as an enhancer of individual choice, and affirms that the occupational structure offers meaningful work. Mean responses of students at both Phase I and Phase II supported these scale values (4.7 for both groups), but their affirmation of the scale was far weaker than for Scale 1.

Scale 3 is psychological in its orientation. It consists of statements that reflect economic alienation and powerlessness and is thus, inversely, taken as a measure of feelings of individual economic efficacy. Students strongly

Figure 1: SCALE MEANS, PHASE I PILOT AND PHASE II PRETEST

THE ECONOMICS VALUES INVENTORY

MEANS Phase I Pilot	Phase II Pretest
5.4	5.6

SCALE 1. THE AMERICAN ECONOMIC SYSTEM (Support for the Economic System)

1. Resources are always limited, and we must make hard choices about the best way to use them.
2. Profits are essential to our country's economic health.
3. Our society owes much to the contributions of business.
4. If workers want higher wages, they must work harder and produce more.
5. People who blame other people or society for their problems are just copping out.
6. My freedom to choose my own occupation is very important to me.
7. It's the duty of people to do their jobs the best they can.
8. Competition between businesses makes for the lowest prices.
9. A company deserves its profits when they come as the result of doing the best job for less money.
10. If you have a valuable skill, you'll get ahead in our society.
11. Groups of individuals with specialized skills, working together, can produce better products than individuals working alone.
12. Our economy needs more people who are willing to save for the future.

MEANS Phase I Pilot	Phase II Pretest
4.7	4.7

SCALE 2. BUSINESS (Trust in business)

13. Most businesses won't sell products they think are unsafe.
14. Government should listen more to what the business community has to say.
15. Businesses could provide more jobs, goods, and services if they didn't have to pay so much in taxes.
16. Advertising helps consumers to make intelligent choices.
17. Most people like their jobs.

MEANS Phase I Pilot	Phase II Pretest
2.8	2.9

SCALE 3. PSYCHOLOGICAL: PERSONAL ECONOMIC EFFICACY (Alienation and powerlessness)

18. It's no use worrying about the economy; I can't do anything about it anyway.
19. Getting ahead is mostly a matter of luck.
20. It's foolish to do more than you have to in a job.
21. Having the freedom to start my own business really means having the freedom to take advantage of others.
22. Being in business means taking unfair advantage of others.
23. Profit is a sign that someone is being taken advantage of.
24. The way our economic system is set up, nobody has a chance to get ahead any more.

Figure 1, continued

MEANS Phase I Pilot	Phase II Pretest	
4.9	5.0	SCALE 4. GOVERNMENT ROLE IN SOCIAL WELFARE (Government is responsible)
		25. It is the responsibility of the government to take care of people who can't take care of themselves.
		26. The poor and the ill have a right to help from the government.
		*27. A person who cannot find a job has only himself to blame.
		28. It should be the duty of government to be sure that everyone has a secure job and a decent standard of living.
		29. The unemployed shouldn't blame themselves for their situation: it's the fault of the economic system.
		*30. Taking care of the poor and the sick is the job of families and churches, not the job of the government.
4.0	4.0	SCALE 5. GOVERNMENT ROLE IN SETTING PRICES (Against government role)
		*31. Companies should only be allowed to charge a government-controlled price for their products
		32. It's not the business of the government to control prices.
4.6	4.6	SCALE 6. UNIONS (Against powerful unions)
		33. Unions are too powerful.
		*34. We'd all be better off if labor unions were stronger.
		35. Employers should have the right to hire non-union workers if they want to.
3.1	3.4	SCALE 7. TREATMENT OF WORKERS (Workers' treatment is fair)
		36. The average worker today is getting his or her fair share.
		*37. The average worker is getting less than his or her fair share.
		*38. Most companies don't give employees a fair share of what the company earns
		39. Most companies give employees a fair share of what the company earns.
4.8	4.8	SCALE 8. THE ECONOMIC STATUS QUO (Against the status quo)
		40. America's wealth is far too unequally shared.
		41. The situation of the average person is getting worse, not better.
		42. There are few real opportunities for the average person to start a business in America today.
		43. We need a way to make incomes more equal in this country.
		44. One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.

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* Indicates reverse scoring item.

rejected the values expressed in this scale. The mean scale score for the Phase I group was 2.8 (where 1 = strongly disagree, 7 = strongly agree), and the Phase II group was 2.9. The scale consists of items which depict one's economic fate as outside the individual's control, and the economic system as exploitative in nature. The emphatic rejection of Scale 3 items is, of course, highly consistent with students' strong affirmation of the values of Scale 1.

Scale 4 asserts the value that government is responsible for social welfare. Students, while strongly affirming the American economic system (Scale 1), see no conflict between an economy in which private capital has a large role to play, and in which there is a large role for government in providing a safety net for the unfortunate. The scale was moderately affirmed by both groups (Phase I mean, 4.9; Phase II mean, 5.0).

Scale 5 addresses the issue of the government's role in price setting. The overall scale mean shows an "indifferent" response of 4.0 for the Phase I group, and the same mean for the Phase II students. While many respondents indeed held no strong opinion about the value expressed by this scale, the majority had strong opinions for or against, such that the seemingly indifferent final mean in this case masks the strong feelings of many.

Scale 6 contains items about labor unions, with statements in the scale scored to be negative toward labor unions. The overall direction of responses, both at Phase I and Phase II, was moderate opposition to strong labor unions (mean score of 4.6 for both groups).

Scale 7 is concerned with whether workers get fair treatment in our economy. Overall, both groups disagreed that workers get a fair share of company earnings, although the Phase I group felt this mre emphatically (a mean scale score of 3.1) than did the Phase II group (mean scale score of 3.4).

Scale 8 items are concerned with the fate of the average person and the equality of the distribution of wealth in America. Respondents at both Phase I and Phase II moderately affirmed the egalitarian distributive values of the scale, with a scale mean of 4.8 for both groups.

C. Phase I Findings

A number of factors at Phase I were found to be associated with systematic differences in economic attitudes. **Exposure to an economics curriculum** was one such factor: students who had had economics instruction were, as measured by the first three EVI scales, more supportive of the American economic system, expressed greater trust in business, and felt greater personal efficacy in dealing with the economy.

Focusing on the more purely cognitive aspects of the economics curriculum, students were tested for their level of economic knowledge, and **extent of economic knowledge and understanding** was related to scores on the EVI. Extent of economic knowledge proved to be a strong predictor of students' economic attitudes differences on five of the eight scales. Thus, students with more economic knowledge gave stronger support to the scale (Scale 1) whose contents depicted the American economic system, showed greater feelings of economic efficacy (Scale 3), more strongly opposed government price-setting activity and powerful labor unions, and were less likely to agree with statements critical of the economic status quo (Scales 5, 6, and 8).

Socioeconomic status also proved to be a reliable predictor of student attitude differences on several EVI scales, with, for example, higher socioeconomic status students expressing greater feelings of individual economic efficacy (Scale 3) than lower socioeconomic status students. A few differences appeared when **race** and **sex** were employed as predictor variables, and a difference on but one scale emerged from using **political party identification** as a line of distinction.

Taken together, these findings argue strongly that a valid tool for measuring youths' attitudes on economic issues had been developed. Further, these findings are favorable to the hypothesis that a textbook such as *Our Economy*, proven in its capacity to transmit economic knowledge, could indeed have an attitudinal impact on its users. The strong predictive power associated especially with extent of economic knowledge seems particularly suggestive of the possibility of such an outcome in the more controlled Phase II evaluation.

* * * * * *

The remainder of this report describes the research approach and the findings of this second phase of the research. In Section 2 the methodology of the evaluation is detailed. Section 3 describes the findings from the pretesting of students prior to their period of instruction. In Section 4, the central question of the evaluation--whether users of *Our Economy* evidence attitudes different from non-users--is addressed. This section also describes the variables hypothesized to affect the impact of the text on attitudes, and our findings about those variables. Section 6 begins our reporting of collateral data, that is, findings not directly related to the evaluation of the text effects, but about factors other than text use that are associated with variations in young peoples' economic attitudes. Section 7 reports data provided by the teachers in this study, and Section 8 presents our conclusions about the evaluation and recommendations for future research.

2. Methodology of the Evaluation

A. The Research Design

The Phase II design specified an initial measurement, or Pretest, of students' economic attitudes as measured on the EVI scales, followed by an instructional period, then a Posttest of the same youths' economic attitudes.

The central comparison was between users of *Our Economy* and non-users; this comparison was embodied by students undergoing a full-term of economics instruction in two cities, Cedar Rapids, Iowa, and Durango, Colorado, and "no economics" control groups of students from the same schools. A subcomparison within this group was that of students at one Cedar Rapids school who received a half-term only of economics instruction. Another site, Minneapolis, provided conditions for another comparison--*Our Economy* users versus users of alternative economics materials. (Because of certain unique features of the Minneapolis data collection effort, the Minneapolis findings are described in a separate section below.)

For each comparison, a balanced number of classrooms from the same school was sought. Each school with a classroom receiving a full term of instruction with the text also contributed a classroom with no economics instruction. Distribution of these students into one or the other group reflected a principle approximating randomness. Thus, text users were not self-selected (they had not, for example, exercised a special option to study the text) nor did they reflect a different academic ability track from non-users. Rather, due to the limited numbers of economics teachers and the vagaries of the school timetable, students had been assigned as a matter of administrative convenience to use the text either the first term of the session (thus falling into the user group for Pre- and Posttest) or the second (thus falling into the non-user group for purposes of this study). The empirical test of whether the groups held essentially similar attitudes prior to the period of instruction was whether their Pretest means on the EVI were essentially similar. (As we shall see in our discussion of the Pretest results, there were indeed no statistically significant differences in scale means between the two groups).

B. The Sample

In order to maximize the possibility of measuring changes due to use of the text we attempted to minimize other possible sources of attitudinal variation across the comparison groups. Thus, a fairly homogeneous sample was sought for the study by limiting respondents to the same grade (9), hence also restricting the age range; and by limiting the number (3) of cities used as sites. At the same time, care was taken to preserve a degree of heterogeneity with respect to factors such as race and socioeconomic status.

Three sites were selected. They contributed a total of 10 schools, and 1,999 students: Cedar Rapids, Iowa (N = 1,231); Durango, Colorado (N = 226); and Minneapolis, Minnesota (N = 542). The sample was approximately half male and half female, with a racial composition of 80 percent white, 14 percent minority, and 6 percent not reporting. In the Durango and Cedar Rapids cases, the sample consisted of the entirety of the ninth grade public school population in the locale, and thus constituted a reasonably comprehensive sampling of the socioeconomic backgrounds in those communities. The Minneapolis sample contained a considerably higher proportion of minority and low socioeconomic status respondents. Characteristics of the sample population are detailed in Table 1, Appendix 3.*

C. Research Instruments

Three research instruments were developed: a student Pretest Questionnaire, a student Posttest Questionnaire, and a Teacher Questionnaire (administered at the time of the student posttest).

The Pretest Questionnaire consisted of the EVI, the same Economic Knowledge Test that had been employed in Phase I, and a Student Information section that elicited data on age, race, sex, and parental occupation and education.

The Posttest Questionnaire repeated the EVI and Economic Knowledge Test, but also was designed to collect collateral information. Questions designed to measure students' attributional tendencies asked respondents to assess the importance of various explanations for personal economic success (for example, luck, ability, effort). Several items sought information concerning students' political orientation. Interest in public affairs was taken as another line of distinction that could be relevant to attitude differences and propensity to change. Finally, an attempt was made to assess respondents' views of various information sources. The specific items used to measure these variables, and hypotheses about their relationship to text-induced changes in economic attitudes, are described later in this report.

On the Teacher Questionnaire, teachers were asked to respond to the EVI and to supply additional information about their professional training, students, methods of instruction, and attitudes toward the text.

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*NOTE: This report follows the convention of referring to all graphs and tables in the body of the report as "Figures," and all those in the appendices as "Tables."

D. Procedures

Questionnaires were mailed to participating schools for administration in the classroom prior to a school's period of instruction in economics. Classroom teachers were responsible for distributing the questionnaire and returning the completed forms to NORC. The Durango and Cedar Rapids Pretests took place early in September,1984, and the Minneapolis Pretest was in late November,1984.

For the Posttest, a roster showing student name and number was prepared for each classroom, and a label with student name and number was affixed to each posttest questionnaire, with teachers again responsible for administering the questionnaire. The posttest took place for the half-term subset of the Cedar Rapids group in November, 1984, and for the balance of the Cedar Rapids and Durango sample in January 1985. The Minneapolis Posttest took place the first week of March, 1985. At the time of the student Posttest, the Teacher Questionnaire was distributed.

E. A Note on Differences in the Minneapolis Design and Procedures

Instructional circumstances in Minneapolis provided a different type of comparison from that of the Cedar Rapids and Durango comparison of *Our Economy* users with non-users. In the Minneapolis case, all 9th grade students were enrolled in economics, but not all students were users of *Our Economy*. Thus, the Minneapolis study design compared users of the text versus users of alternate economics materials.

The ideal quasi-experimental basis for making such a comparison would be a situation in which *Our Economy* users and users of alternative materials could be found in the same schools, and assignment to the one group or the other should be governed by a principle approximating randomness, as was the case in Cedar Rapids and Durango. Unfortunately, this intended design could not be implemented in Minneapolis, because the particular schools that were willing to participate in the study represented one or the other of these conditions, and not both at the same time. Thus, from among the Minneapolis schools that agreed to take part, two were chosen on the basis of their highly similar composition (i.e., like socioeconomic and racial backgrounds, and similar achievement levels). Compared to the Cedar Rapids and Durango sample, these particular schools gave heavier representation to students scoring in the lower ranges of economic knowledge, to students from lower socioeconomic status backgrounds, and to racial minorities (especially blacks), thus providing desirable points of contrast with the main sample.

In contrast to the September Pretest and January Posttest of the full-term Cedar Rapids and Durango groups, Minneapolis respondents took the Pretest in late November (when economics instruction began for them) and the Posttest in March (when economics instruction ended). The Pretest and Posttest questionnaires for Minneapolis were identical to those used for the Cedar Rapids and Durango groups, except for the presence of two additional questions, intended to assess student interest in economics and their evaluation of its importance as a subject.

Another special feature of the Minneapolis component of the study was the Posttest availability of a group of *Our Economy* users that had not taken the Pretest. One concern in a Pre- versus Posttest design for measuring attitude change is that the very intervention of pretesting may in some way alter the subsequent conditions or environment of the experiment. For example, it might be that pretesting students with an attitudes scale would make them especially sensitive to these same attitudinal issues when encountered in the course of instruction. Thus, such a group could change more than a group that had not been pretested.

If pretesting itself does act as an influence on final attitudinal outcomes, it is important to know this for two reasons: first, in order to interpret results (Posttest scores for pretested students would show more change than would obtain in a normal classroom situation), and second, as a point of information relevant to the design of the economics curriculum (if a goal is to maximize attitudinal impacts of a text, sensitizing students to attitudinal issues through pretesting would be a productive procedure). Thus, an additional feature of the Minneapolis design was utilization of a group of Posttest-only respondents.

3. Findings of the Evaluation: The Pretest

A. Reassessment of the EVI Scales

The first task of the Phase II study was to reexamine the measure so central to the evaluation, the EVI scales developed in Phase I. Would the individual attitude statements cluster together to form the same scales as they had before, or would different constellations of attitudes appear with this larger and in many ways quite different group of student respondents?

In Phase I, factor-analytic techniques were employed to develop the valid and reliable multi-item scales which combine to form the Economics Values Inventory. The diversity of populations encompassed in Phase I of the study (see O'Brien and Ingels, 1984) provided a basis for confidence that the scales would prove a valid and reliable measure for other groups of American junior high school students. Phase II of the study afforded an opportunity to test that assumption and, with an even larger number of students (1,911), reassess the adequancy of the EVI scales.

This reassessment was carried out in two ways: first, the new data were factor analyzed to see if the factors that emerged would be essentially the same as those from Phase I (which served as the basis for the EVI scales). Second, the statistical reliabilities of the EVI scales were reassessed using the new set of student responses.

Factor analysis of the new (Phase II Pretest) data showed a handful of item displacements but otherwise consistently recapitulated the results of Phase I. The same eight Phase I factors re-emerged, and very largely they were made up of just the same items. New scales were then constructed on the basis of these minor differences. The new data were used to compare old and new scales for reliability (as gauged by Cronbach's "coefficient alpha"). Scales derived from the Phase II factor analysis yielded no appreciable advantages in reliability over the original (Phase I) scales, and the original eight scales were retained. The factor and reliability analyses conducted with the Phase II Pretest data gave substantial additional confirmation to the EVI in its original form. (See Ingels and O'Brien, 1985, for details of these analyses.)

B. Performance of New Items

An important finding in Phase I of the study was that issues important to a junior high school textbook presentation of economic issues were not necessarily meaningful, (that is, capable of eliciting an attitudinal response) to junior high school students. The original Phase I pool of some 250 questions contained many items that dealt, both in concretely specific and in general terms, with issues of government as a producer of goods and services, the comparative efficiency of private and public sectors in the provision of economic goods, and government regulation of the economy. Such items did not fare well with the junior high school sample. (Many of these items were, however, quite meaningful to the contrast group of Grade 12 students enrolled in Junior Achievement, and made their way onto the Senior High School Version of the Economics Values Inventory. See O'Brien and Ingels, 1984.) With the younger students, the items were plagued by especially high rates of "Don't Know" and "Indifferent" (point 4 on the 7-point agree-disagree scale) responses, and they generally failed to load highly on any of the attitude clusters that emerged from factor analysis.

The exception to this generalization, Scale 5 (Against a Government Role in Price Setting) illustrates the problem. Although as recently as the Nixon administration general price controls have been (briefly) invoked, and government regulation of selected areas, such as fare schedules in interstate transportation, might be seen as a limited example of price controls, it seems fair to say that price controls are an issue with little prominence on the national political agenda, and are of but peripheral interest in junior high school economics materials. Nevertheless, many students find the case of price controls easy to grasp, and they have feelings in the matter. They can imagine what it would be like to go to a shop and know that the government, not the shopkeeper, determined the prices. On the other hand, it would seem as though students can make but meagre imaginative purchase on many of the kinds of governmental regulatory activities which are part of the everyday experience of businesspeople. Thus, there was a sense in which the Phase I EVI left us with an important--from a textbook point of view--area that was barely touched on by the final attitude items.

In an attempt to remedy this deficiency, the sponsor of this research, the Foundation for Teaching Economics, supplied NORC with a list of possible new items, all in the area of the role of government in the economy. Five were selected for inclusion in the Phase II version of the EVI. They were:

> Business works best when there are few government regulations.
>
> We need government regulations to keep businesses from taking advantage of us.
>
> Business is a better provider of goods and services than is government.
>
> If the government were more involved in the economy, it would work better.
>
> If the government were less involved in the economy, it would work better.

in the Phase II Pretest, these items performed in much the same way as had similar items in Phase I. They garnered very high rates of "Don't know" and "Indifferent" (point 4) responses, and in factor analysis, generally failed to associate with each other or to load highly on any of the eight existing factors.

Two of the items (on government involvement in the economy) did correlate well with each other, and it was decided to leave them on the Posttest questionnaire in the event that the items would become relevant to students of economics by the Posttest stage. We hypothesized that it is precisely in an area where information and strong existing feelings have been lacking that a text would be likely to have the most decided impact.

C. Variables Associated with Differences in Attitudes

Finally, Phase II Pretest data were analyzed to determine if there were statistically significant differences in values between users of *Our Economy* and non-users prior to the period of instruction, and to reexamine the variations in economic attitudes associated with different levels of economic knowledge, different socioeconomic status, race, and sex, (also studied in the previous phase of the research).

As required by the study design, no systematic differences in attitudes appeared between users of *Our Economy* and the non-user group prior to the instruction period. Along all other lines of analysis, however, significant differences across sub-groupings of students were noted on some scales, in a manner and direction that paralleled the Phase I findings summarized in the introductory section of this report. Thus, **economic knowledge** proved to be a powerful predictor of differences in students' economic attitudes, with statistically significant differences on all eight EVI scales. **Socioeconomic status** also again proved to be a strong predictor of attitude differences. For example, higher SES students show more support for the prevailing economic system (Scale 1), and less for a government role in social welfare (Scale 4). Due to the possibility that economic knowledge might, in effect, be a proxy for SES (that is, economic knowledge and socioeconmic status might be highly correlated, and observed knowledge differences merely a reflection of differences in socioeconomic status), a two-way analysis of variance was carried out to determine whether SES and economic knowledge had strong independent effects. Each was found to be a source of value differences in its own right.

Students of different **races** responded significantly differently on some scales, with whites and Hispanics showing more support than blacks or American Indians for the American economic system, and blacks showing more economic alienation and feelings of powerlessness than other groups.

Supplemental analyses show that these differences are, as in Phase I, primarily black - white differences. A two-way analysis of variance was employed to separate race from SES effects, and it was determined that being black was not simply a surrogate for low SES but an independent effect.

Only one analysis yielded findings strongly at variance from the Phase I research findings, and that analysis concerned sex of respondents. It came very much as a surprise that males and females held economic attitudes that were different at statistically significant levels. Pretest sex differences appeared on Scales 2, 4, 5 and 8. (In Phase I only Scale 5 showed a difference of comparable magnitude, with modest differences on scales 4, 7, and 8. Differences are, however, in a quite consistent direction between Phase I and the Phase II Pretest.)

One might speculate that the greater sex differences seen in Phase II reflect a higher mean age of the Phase II sample and the tendency of attitudinal sex differences to become more pronounced with the progress of adolescence. (Mean age for the Phase II sample is 14 years; for the Phase I Pilot, 13 years; for the Phase I pretests, 12.8 and 12.4 years respectively). Given the association we have already seen between level of economic knowledge and attitudes, it is perhaps appropriate to take note of the contention that "difference in economics understanding between males and females has already developed by high school" (Siegfried, 1979: 4), with males holding a statistically significant advantage.

(For further details of the Phase II Pretest, see Ingels and O'Brien, 1985.)

4. Findings on the Attitudinal Impacts of *Our Economy*

A. Performance of the New EVI Items

At Phase II, five new items were added to the EVI, all pertaining to the role of government in the economy. While at the Pretest these items did not perform in a highly successful way, it was hypothesized that they might become more significant to respondents after instruction in economics.

"Don't know" reponses decreased marginally, and more so for students who studied *Our Economy*, but still remained comparatively high (typically, over 20 percent). In the factor analysis of text users' responses, the new items fared better than they had at the time of the Pretest. "If the government were more involved in the economy, it would work better," continued to form a robust factor with its contrary (with a reliability, as measured by Cronbach's alpha, of .7), although it did not factor together with the other new items or any old items.

Our finding thus remains largely negative--the ninth graders in our sample often lacked intense feelings about the "government in the economy" items--although post-instruction analyses do decidedly show a pattern of stronger and more consistent attitudinal response to these items. Nevertheless, because of their weak performance relative to the items already in the EVI, we do not include the new items in the remainder of this report's analyses of text impacts on attitudes. (See the final section of this report for recommendations about the use of these items in future administrations of the EVI.)

B. The Central Question of the Analysis: The Effects on Attitudes of *Our Economy*

1. A Note on the Data Used for the Analysis

The Cedar Rapids and Durango samples fulfilled the conditions of an ideal quasi-experimental design. With the Minneapolis sample, however, it was not possible to find both comparison conditions--users of *Our Economy* and users of alternative economics material--within the same school. Although two similar schools were used, analysis of mean scores on the scales of the EVI nevertheless revealed statistically significant differences between the two groups prior to the instruction period. Because students in the different conditions did not start out with similar attitudes, comparison of the Posttest scores of *Our Economy* users versus users of alternative materials is not appropriate, although it is of course possible to look at the magnitude of changes over time for each condition independently.

Another consideration that prevented us from combining Minneapolis data with data from the other sites is the far smaller number of students in the Minneapolis sample (a Pretest sample of 1,457 for the Durango and Cedar Rapids group, versus 454 for the Minneapolis Pretest-Posttest group, and another 88 for the Posttest-only group). Attrition for the Minneapolis group at the Posttest was, moreover, unexpectedly dramatic. The 454 Pretest respondents dropped to 352 at the Posttest.

The comparative quality of the Minneapolis data is also in doubt. Many of the Minneapolis questionnaires were of high quality; many were characterized by large numbers of questions skipped and by implausible and inconsistent responses, often accompanied by irrelevant marginalia and graphic work. In addition, we received a note from one of the test adminstrators warning us not to put much weight on the responses from his classrooms, since his students appeared not to be taking the questionnaire seriously, and to too often be putting down arbitrary answers to questions they had not read or considered.*

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* **NOTE:** Given that the Cedar Rapids and Durango questionnaire data appear to be of exceptionally high quality for a 9th grade respondent population, and that the Minneapolis data appear to be of below average quality, the question arises as to why there should be such a difference. One reasonmight be the socioeconomic status differences between the groups: low socioeconomic status classrooms, notoriously, are poor testing environments. Another difference between the two test situations was that, though both groups were assured of the confidentiality of their responses,only the Cedar Rapids and Durango groups consistently used their own names. Some name identification, recognizable to the respondent at the Posttest, was of course necessary for the Pretests to be linked to the Posttests. In Minneapolis, however, school regulations covering the confidentiality of certain questions (for example, the ones that attempted to elicit socioeconomic status data) precluded us from requiring real names, and fanciful names, as chosen by the student, were usually substituted.It well may be that a student, answering under the persona of Mickey Mouse or Darth Vader, feels a diminished sense of responsibility to answer carefully and truthfully.

2. Findings from the Main (Cedar Rapids & Durango) Samples

Does exposure to a semester (or less) of instruction with the text *Our Economy* affect the economic attitudes and values of junior high school students? This was the central question of the evaluation, answered by comparing the post-instruction-period attitudes of text users and non-users.

The "text" versus "no text" conditions embodied in the study design might be seen in two perspectives. First, we think that *Our Economy*, as a comprehensive and straightforwardly factual account of economic concepts accompanied by a series of illustrative case studies, enjoys a degree of typicality which permits qualified generalization from its effects to the effects of economics curriculum materials in general. Second, note might be made of the particular emphases of the text, from which areas of expected attitudinal change might be hypothesized. Although the text's sponsors hold a strong value position on economic issues, the text itself is designed to be a descriptive presentation, and limits itself to accepted concepts and facts. The text sponsors have, however, hoped that increased economic knowledge and understanding would have the effect of enhancing appreciation of the sort of mixed market economy, in which private enterprise has a large role, that prevails in the United States. And there is one values message that comes near to being explicit, namely the efficacy of the individual in the economic process. The text does attempt to help each student achieve greater awareness of being an important component, both as producer and consumer, in the economy. Given these emphases, the scales hypothesized to be most salient as indicators of text impacts would be 1, 3, perhaps 2, and 7 and 8 .

The analysis used Posttest scores adjusted for the Pretest scores as the main technique for exploring changes. This technique, analysis of covariance, produces a corrected change score that is less error-prone than a simple change score. Table 2, based on the covariate analysis, depicts attitudinal differences between the "text" and "no text" groups, and compares groups receiving full- versus half-term instruction. Modest but statistically significant "text" versus "no text" differences are seen on scales 1, 2, 3, 7, and 8, and differences are in the hypothesized direction. Text users are:

* more supportive of the free enterprise system scale (scale 1);
* they show more trust in business (scale 2);
* they feel less alienated (scale 3);
* they are more likely to feel that workers' treatment is fair (scale 7); and
* they are less likely to express disagreement with the economic status quo (scale 8).

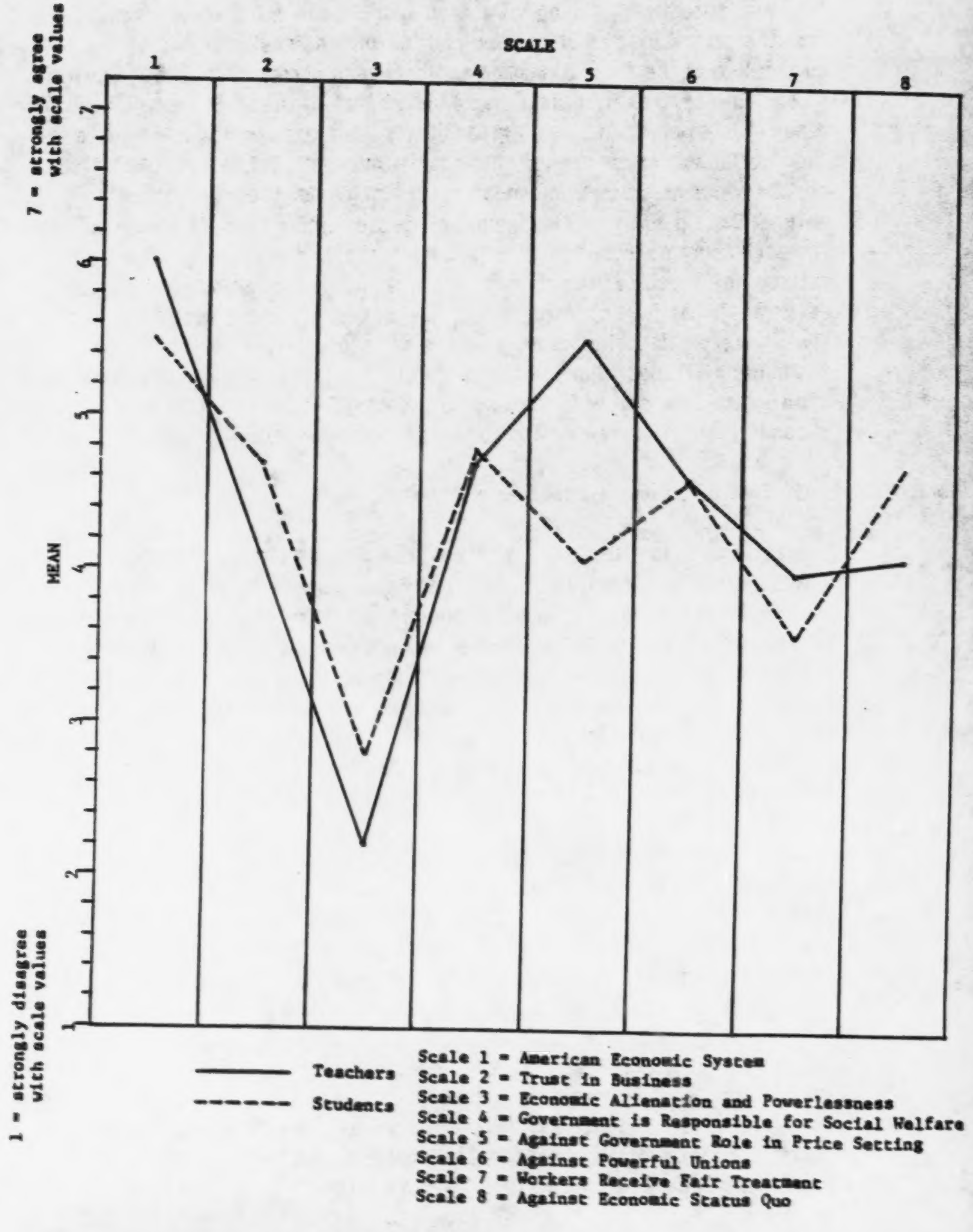
Significant differences between text users and non-users are not observed for the role of government scale (scale 4), or on the price control (scale 5) or union (scale 6) scales.

One particularly interesting finding is that, as in Phase I, one effect of economics instruction is an increased affirmation of the Trust in Business scale. Nevertheless, Trust in Business scores at the Pretest were associated with lower rather than higher levels of economic knowledge (Table 3). Given that the text has proven capacity to increase economic knowledge scores, this result is somewhat paradoxical. A further consideration here is that when, in Phase I, the EVI was administered to 207 high school seniors as a point of contrast with the junior high school group, it was found that the older youth showed significantly more support for scale 1, a significantly greater degree of rejection of the alienation items of scale 3, but substantially less trust in business (Scale 2). In comparing scale means of students to those of their teachers (Figure 2, next page; also Table 4), we see precisely the same phenomenon: teachers are more supportive on the free enterprise scale (1), and show less alienation, but also significantly less trust in business (Scale 2). It might be speculated that this paradox reflects the fact that both entrepeneurial and consumer values are allied more to healthy skepticism than to blind trust. If so, the data suggest that economics instruction can, at least as an end-of-course attitudinal effect, dampen this maturity- and knowledge-related trend.

The design of the study also allowed a comparison of the post-instructional attitudes of students with greater and lesser exposure to the text. Thus the question of whether the text has a greater impact with greater periods of use is answered by the evaluation.

Analysis of covariance reveals that a length-of-course effect appears on Scales 3, 5 and 8. Thus, half-term text users show less emphatic disagreement with the alienation items of Scale 3 than do full-term users. Half-term users are also more likely to give stronger agreement to the egalitarian values of Scale 8. Finally, half-term text users are more strongly against a government role in price setting. It may be that certain categories of economic attitude are more influenced by duration of exposure to instruction than are others. It might be expected that the more psychological scales, such as Scale 3, or scales with a strong egalitarian and distributive component (as contrasted to a production or economic efficiency emphasis), such as 8, would be especially sensitive to duration of exposure, and show more change with a longer course of instruction. (But it is far from apparent why a length of course effect should appear also for the price control scale [5].)

Figure 2: POSTTEST STUDENT versus TEACHER MEANS BY SCALE



The existence of these modest but statistically significant changes at the Posttest is indeed noteworthy, in the context that (1) *Our Economy* makes no overt attempt to influence attitudes, and, beyond the fact of individual economic efficacy, eschews a values message, choosing instead to counsel informed thoughtfulness on all controversial economics values issues; and (2) that the part played by of any one- or one-half semester parcel of the school curriculum in the total life of an adolescent is normally thought to be so small. One caution that should be entered here is that neither this study nor other studies grant us some Archimedean point from which to evaluate the implications of these change findings. It may be that the sort of attitude change which we see is an end-of-course effect of the most transitory nature. Or it may be that economic concepts remain latent in the mind until further economic experience calls them forth, and that the greater part of the attitudinal impact of the economics curriculum is, at this age and stage, deferred. What is reasonably clear, having demonstrated the presence of text-related attitudinal change, is the need to systematically link youth economic attitudes to behavior, by relating attitude differences to measures of in-school and out-of-school performance. The final section of this report expands upon the possibilities for this type of research.

3. Findings from the Minneapolis Sample

Limitations of the Minneapolis data were sketched earlier in this section. Again, it was not possible to realize the two experimental conditions (*Our Economy* users; users of other economics materials) within the same school. Like schools (similar SES and racial makeup) were chosen for participation in the study. Nevertheless, the mean attitude scores of the two schools at the Pretest were significantly different on more than half the scales (specifically, on scales 1, 2, 4, 5, and 8). In addition, the number of students participating dropped dramatically at the Posttest. Finally, data quality, compared to the other sites, was poor.

While a covariance analysis contrasting adjusted Posttest means was appropriate for the Cedar Rapids and Durango sample (where all comparisaon groups, text users and non-users alike, started out the same at the Pretest), the limitations of the Minneapolis data argued for contrasting Pre- and Posttest means within each instructional group, and refraining from comparison across the groups (that is, *Our Economy* users versus users of other materials). Thus, mean change was calculated. Students who had not taken both Pre- and Posttests were excluded from the calculation of the change scores. In addition, an exclusion criterion was in effect for missing data (unanswered questions), so that to count in the calculation for a particular scale, a respondent had to answer (a) at least half the scale items and (b) the same scale items at Pre- and Posttest.

Analyses revealed that for the *Our Economy* group, there were statistically signficant Posttest changes only on scales 4 and 7. On Scale 4, the "Government Role in Social Welfare" scale, there was a drop of support for the scale. Scale scores went from 5.1 (Pretest) to 4.8 (Posttest). On Scale 7, "Workers Receive Fair Treatment," agreement with the scale increased, going from 3.1 (Pretest) to 3.4 (Posttest). These changes may be seen in Table 5.

For the group receiving instruction with alternate economics materials, there were statistically significant changes on Scales 3, 4 and 7 only. On Scale 3, the "Alienation and Powerlessness" scale, rejection of the alienation items intensifeid with a shift from a Pretest 3.1 to a Posttest 2.8. On Scale 4, "Government Role in Social Welfare," support for the scale dropped, from 4.8 to 4.5. On Scale 7, "Workers Receive Fair Treatment," support for the scale increased from 3.4 (Pretest) to 3.6 (Posttest). These changes are also summarized in Table 6.

We would surmise that this weak pattern of change reflects not only the likelihood that changes were, in absolute magnitude, small, but also the low number of students in the Minneapolis sample, and the confounding effects of often poor data.

C. Factors Associated with Variations in the Impact of an Economics Curriculum

1. The Effect of Pretesting on Subsequent Attitude Change

Although the Minneapolis sample fit imperfectly into the overall quasi-experimental design for the study, one particular participating school afforded a special opportunity to test a major assumption of the study design. Earlier, we mentioned the possibility that pretesting might have an influence upon students' receptivity to the economics curriculum and an effect upon their Posttest performance on the EVI. If so, it would imply that Posttest scores would, generalized to classrooms where pretesting had not taken place, overstate the amount of attitudinal change. On the other hand, this same phenomenon could, if identified and measurerd, have valuable curricular implications, and point to a way in which values impacts might be maximized.

In order to determine whether the Pretest acted as an additional influence on the Posttest scale scores, the opportunity to use a group of 88 Minneapolis students available for the Posttest only, and studying economics with alternative economics materials, was utilized.

Mean scale scores for the Posttest-only group were compared to the scores for respondents from the same school, who had taken both Pre- and Posttest. On seven of the eight scales of the EVI, no statistically significant difference emerged. On Scale 5, "Against Government Role in Price-Setting," the Posttest-only group and the Pre- and Posttest groups both fell in the neutral range, but the Posttest-only group was nearer to disagreement with the scale values. The price control scale, though reliable, consists of but two items and is somewhat marginal to the broad and vital concerns expressed in the first four scales. In addition, it is peripheral to the economics materials the respondents were exposed to. Granting these considerations, and the fact that no other differences were observed that could systematically be related to the differences on Scale 5, we do not attach meaning to the difference on this one scale. Given the overwhelming similarity of responses, this limited test of Pretest effects yields a negative finding: we have no evidence that pretesting in any way altered the attitudinal learning experience.

2. Demographic and Knowledge Variables

In this section, we return, in the more experimentally controlled circumstances of Phase II, to the basic demographic and knowledge variables that were examined in the first phase of the research. Specifically, we look at the relationship between text use and *race, sex, socioeconomic status,* and *economic knowledge,* for an indication of the possible joint effects of each of these variables and text use on economic attitudes, as measured on the EVI scales.

Race. Our first steps, in examining race effects, was to examine the attitudes of different racial groups, regardless of whether they used the text. When Posttest means for blacks, whites and American Indians (the three largest racial groups at the Posttest) were examined for the full sample (all conditions and all sites), significant race differences appeared on Scales 1 (Support for the American Economic System) and 3 (Economic Powerlessness and Alienation) only (see Table 7). On Scale 1, the black mean was 5.2 (Pretest=5.1), the white mean was 5.7 (Pretest=5.6), and the American Indian mean was 5.2 (Pretest=5.2). A Scheffé procedure was used to denote pairs of groups significantly different (at the .05 level) and it indicated that whites were significantly different from blacks and American Indians in their Scale 1 scores. On Scale 3, the groups significantly different were blacks and whites only, with a white Posttest mean of 2.7 (Pretest=2.8), an American Indian mean of 3.0 (Pretest=3.1) and a black mean of 3.3 (Pretest=3.4).

A particular subpopulation of the study (Cedar Rapids) was utilized for the two-way analysis of race and text use effects. Thus, the possibly confounding influences of site variations were excluded, as was the Minneapolis data, which, though it contained the highest proportion of black respondents, was of lower quality and did not offer the *Our Economy* versus no economics instruction contrast. The outcome of this analysis is depicted in Table 8.

Although based on but a small number of blacks (N=30; 14 text users, 16 non-users), the pattern is consistently one in which text use rather than race is the decisive factor for predicting atttitudes differences. Only on Scale 7 (Worker Treatment is Fair) is there a statistically significant race difference, and even here the text versus no text difference is stronger.

Sex. The Phase II Pretest showed unexpectedly stronger economic attitudes differences by sex than had appeared at Phase I. Phase II Posttest differences were stronger still (see Table 9). The four scales where statistically significant differences had appeared at the Pretest continued to display these differences at the Posttest. Where one sex had changed after the instruction period, so had the other in tandem, thus maintaining the relational disparity. In addition, sex differences emerged on two more scales (3 and 7). While females showed a lower Scale 3 (Alienation and Powerlessness) score at the Posttest than at the Pretest, males showed a larger drop, thus widening a pre-existing gap. A like phenomenon characterized responses to Scale 7 (Workers Receive Fair Treatment), where female support for the scale went up, but less dramatically than did the males'. With statistically significant differences now appearing on six of the eight scales, including Scale 3—the "Individual Efficacy" or "Alienation and Powerlessness" scale so central to the valuational concerns of the text—the fact of male-female attitude differences has assumed an unanticipated saliency.

Sex differences for the sample were found in economic knowledge scores as well as attitudes. Males had higher Pretest economics knowledge scores. Both males and females undergoing economics instruction showed knowledge gains at the Posttest, but the male economics knowledge advantage persisted. It should be noted that nationally-normed high school economic understanding tests such as the Joint Council on Economic Education's "Test of Economic Literacy" show a male economic knowledge advantage (Soper and Brenneke, 1981) as does most of the available literature for school levels other than primary school (MacDowell, Senn, and Soper, 1977; Ferber, Birnbaum and Green, 1983). Therefore, additional analyses were conducted to see if male-female attitudinal differences were independent of economic knowledge differences for this sample.

A two way analysis compared scale score differences for males and females across the range of four economic knowledge categories (high to low) for the Cedar Rapids-Durango text user population. Controlling for level of economic knowledge, sex remained a statistically significant source of attitude differences on Scales 2, 3, 5, and 7 and 8. However, Scale 3 evidenced a special pattern, where sex differences were extreme at the low levels of economic knowledge, but there was near convergence at the higher levels:

Level of Economic Knowledge	MALES	FEMALES
1 (Lowest)	3.6	3.1
2	3.2	2.7
3	2.4	2.3
4 (Highest)	2.2	2.2

1 = reject scale values 7 = agree with scale values

Figure 3: Mean Scores on Economic Alienation and Powerlessness Scale (3), by Sex and Level of Economic Knowledge

Although this pattern is not generalizable to the other, less psychological scales, it does suggest, for a scale of central importance from the perspective of *Our Economy's* intended attitude impact, that sex differences in economic attitudes might diminish if males and females equally could be brought up to the highest levels of economic knowledge. This in turn may help to explain why, on Scale 3, sex differences are statistically insignificant for users of the text, even though sex as well as level of economic knowledge is a source of attitudes differences. It is, of course, beyond the scope of this report to comment on the highly controversial and puzzling finding of male-female differences in extent of economic knowledge at the junior and senior high school level. But we can point to the possibility that some of the attitude differences we see may be in part a function of these knowledge differences, and this may be so particularly for Scale 4 (where sex differences lost their saliency when we controlled for different levels of economic knowledge), and in a qualified sense, for Scale 3.

Economic Knowledge. A major assumption underlying this research has been that the text's attitudinal impact would come primarily as an effect of increasing students' factual knowledge. The strong relationship seen between economic knowledge, as measured by a factual test, and economic attitudes, suggests such a relationship, but does not rule out the possibility that the text may have an impact in other ways as well. After all, factual knowledge may be an overly narrow test of the cognitive effects of *Our Economy*. It might have an attitude impact through other cognitive changes, not measured by knowledge scores. In addition, there may be noncognitive or affective elements of the economic socialization process that are brought into play by the interaction of text, teacher, and the classroom environment. Given these possibilities, it is requisite to explore whether level of factual knowledge, so reliable a predictor of attitudinal differences, explains the whole, or only a part, of the text's attitudinal impact.

A two-way analysis of economic attitude differences was used to simultaneously view text effects (EVI scale scores of text users versus non-users) and effects of economic knowledge (EVI scale scores of students with different levels of economic understanding). If *Our Economy* has its attitudinal impact purely by virtue of the increased level of factual understanding that it transmits, one would expect to see, on any given EVI scale, no statistically significant differences between text users and non-users, when comparing like groups at any of the four levels of economic knowledge specified by the economic knowledge test. Given that there were no systematic or statistically significant differences between text users and non-users at the Pretest, should instructional factors other than factual knowledge be operative, differences between text users and non-users at each of the four levels of economic understanding might be detected.

The two-way analysis of the text versus no text (Cedar Rapids and Durango) groups showed that extent of economic knowledge was a powerful predictor of statistically significant attitudes differences. These differences appeared on all eight scales. The text, however, also had a strong independent effect, on some scales (1, 2, 7, 8) though not on others (3, 4, 5, 6). Thus, users of *Our Economy* are more likely to give strong support to the American economic system (Scale 1), more likely to support the Trust in Business items of Scale 2, are more likely to feel that workers' treatment is fair (Scale 7), and are less likely to agree with items attacking the economic status quo for distributive unfairness (Scale 8), than are non-users of the text *in the same ranking of economic knowledge.*

The independent effect of text use on these four attitude scales suggests that some of the impact of the text is not entirely mediated by factual knowledge. In most cases (Scales 1, 7, and 8), the text apparently reinforces the effect of increasing knowledge. With Scale 2, however, text use dampens this effect (see Figures 4, 5, and 6).

Level of Economic Knowledge	Text Users	Non-Users
1 (Lowest)	5.3	5.1
2	4.9	4.5
3	4.7	4.5
4 (Highest)	4.5	4.4

1 = reject scale values 7 = agree with scale values

Figure 4. Mean Scores on Trust in Business Scale (2), by Text Use and Level of Economic Knowledge

It must be emphasized that what we are calling a "text effect" may be a broader factor associated not specifically with *Our Economy*, but with the curriculum process more generally. It might, for example, be the case that those who have undergone economics instruction have been exposed to more affective elements of economic socialization by their teachers. Thus, it would not be surprising to see students' attitudes become, in the course of a term of instruction, more like those of their economics teachers. We do not think that this scenario fits this particular case, however: (1) although teachers differed in their EVI scale scores, we did not see significant differences between groups of students taught by different teachers; and (2) while teacher influence is consistent with, for example, the increased scores of text users on Scale 1, it seems hardly consonant with the text effect for Scale 2, for teachers scored lower on that scale than did their students at

Pre- or Posttest. Still, the fact remains that what we have analyzed as a "text effect" for certain of the scales, is an attribute of economics instruction for the group in question, and that the precise role, if any, of *Our Economy* in producing this effect is a matter for speculation.

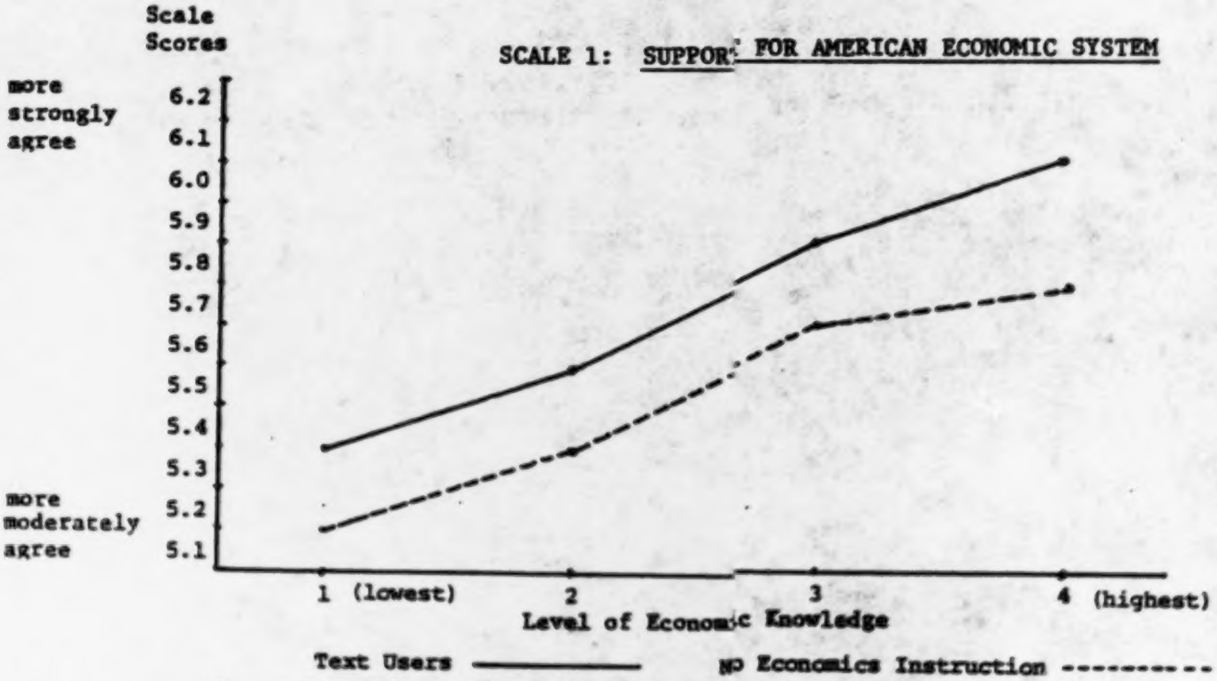


Figure 5: Affirmation of American Economic System by Level of Economic Knowledge and Use of *Our Economy*

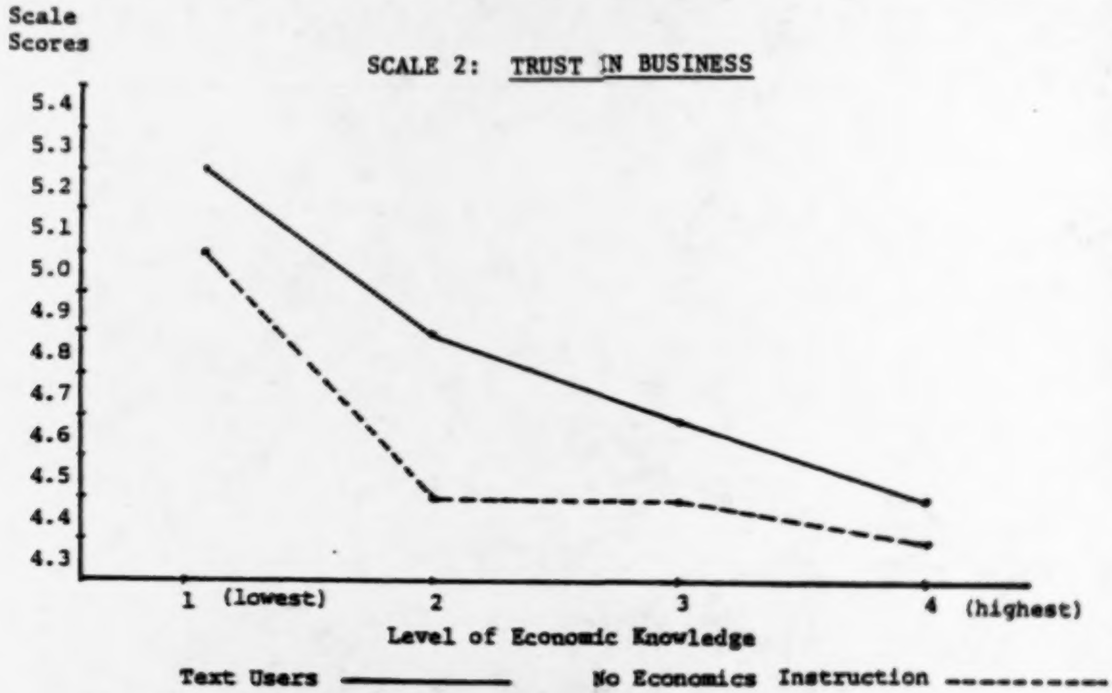


Figure 6: Endorsement of Trust in Business Scale by Level of Economic Knowledge and Use of *Our Economy*

1.0 = strongest disagreement with scale values, 4.0 = neither agree nor disagree, 7.0 = strongest agreement with scale values

5. Collateral Data: Factors Associated with Differences in Economic Attitudes

A. Socioeconomic status.

In the Phase II Pretest, statistically significant differences were found in the attitudes of students of different socioeconomic status, specifically, on Scales 1, 3, 4, 6, 7, and 8. At the Posttest, differences were seen on Scales 1, 3, 4, 5, 6, and 8. These differences were in the expected direction, and Phase II Posttest results largely recapitulate, with minor variations,the findings of Phase I and the Phase II Pretest. Thus, support for the American economic system (Scale 1) increased with ascending socioeconomic status. Level of "Trust in Business" (Scale 2) did not significantly vary for students from different socioeconomic backgrounds. Disagreement with the alienation and powerlessness items (Scale 3) increased with higher SES. Support for government's role in social welfare (Scale 4) was strongest among those of lower socioeconomic status.

B. Interest in Public Affairs

Another variable that was explored was "interest in public affairs." Three questions were asked on the Phase II Posttest to gauge this interest:

- How interested were you in the election campaign?
- How often do you watch the evening television news?
- How often do you read the local and national news sections of the newspaper?

These three questions were recoded and summed to form a 5-point Interest in Public Affairs variable. Respondents were divided into High (interest) Medium and Low groups, and their responses on the EVIscales were compared. Analysis of this variable revealed no differences between those of high, medium, and low interest in public affairs on the Trust in Business, Government is Responsible for Social Welfare, and Price Controls scales (Scales 2, 4, and 5) (see Table12)

However, significant differences were detected on Scale 1 (Support for the Free Enterprise System), where the high interest group showed a mean of 5.8, the medium group 5.6, and the low group 5.4; and for the Economic Alienation and Powerlessness scale (Scale 3), where the high interest group was the least affirming of alienation items, with a mean scale score of 2.5, the medium interest group had a mean of 2.7, and the low interest in public affairs group a mean of 3.0.

In addition, statistically significant differences were detected on Scale 6 (Against Powerful Unions), with higher interest in public affairs associated with less support for unions; for Scale 7 ("Workers Receive Fair Treatment"), where higher interest in public affairs is associated with stronger feelings that workers receive fair treatment; and on Scale 8 ("Against the Economic Status Quo"), where higher interest in public affairs is associated with lower scale scores.

The public affairs interest variable is related to SES and economic knowledge. Nonetheless, additional results (two-way analyses of variance) indicate that the effects of interest in public affairs on Scales 1, 3, 6, and 8 are independent of those of SES and economic knowledge. It would appear, then, that interest in public affairs points to a meaningful and most intriguing intersection between economic attitudes and certain other behaviors and dispositions.

C. Political Orientation

In the instrument development phase of this research (Phase I) we were surprised to find that political party affiliation was generally a poor predictor of orientation on the eight attitude scales of the EVI; students allied with one or the other political party did not report different attitudes on these scales. To further explore this relationship--or lack of relationship, additional political information questions were asked in Phase II.

We approached the analysis of these items aware of a possibly confounding, possibly illuminating circumstance that was specific to the Phase II study, namely, that between the early September Pretest and the early January Posttest (second week of November for the half-term subsample), presidential and local election campaigns would take place. The 1984 election seemed one which posed a clear ideological choice between a liberal and a conservative presidential candidate, and seemed an election with a heavy focus on economic issues. At the same time, the salience of economic issues, and of clearcut ideological choices, seemed as though it might have been more apparent than real, given the large numbers of selfdescribed liberals and Democrats willing to vote for an avowedly conservative Republican, and given the surprising fluidity of political party identifications as reported by adults just after the election. The instability of adult partisan attachments in 1984, we thought, might well leave their adolescent offspring less sure of their party or ideological orientations.

Students were asked a number of politically-oriented questions. They were asked: What political party do you lean toward? Only 35.6% of the students were willing to strongly commit themselves to either party, and fully 31.3% had leanings toward neither party. It is of course unclear whether the large number of uncommitted respondents reflects a persistent generational difference, or whether as political socialization proceeds, partisanship will reduce the uncommitted category. Since the Spring, 1984 Phase I saw a similar proportion of uncommitted respondents, it is unlikely that lack of strong partisanship reflects the particular conditions of the 1984 election.

Respondents also were asked to rank themselves on a 7-point liberal-to-conservative scale. Responses in percentages appear below:

2.7%	Very Liberal
6.1%	Liberal
6.2%	Slightly Liberal
22.3%	Moderate, middle of the road
7.0%	Slightly Conservative
6.2%	Conservative
2.0%	Very Conservative
36.5%	No opinion or don't know
11.0%	No Response

Only 30% of respondents were willing to categorize themselves as either liberal or conservative; and if we drop the "Slightly Liberal" and "Slightly Conservative" categories, strong liberal/conservative identification is claimed by only 17% of the sample. The feeling that an ideology label might be more meaningful to ninth graders than a party affiliation label would seem, in this instance, misplaced. However, on some political matters respondents were more emphatic and sure.

The Posttest Student Questionnaire asked which candidate was favored by the student in the November presidential election. Here 50.2% favored Ronald Reagan, 35.3% Walter Mondale, 5.9% "Other," while 8.6% did not know or had no opinion.

Even given the substantial numbers of respondents without firm party or political ideology identifications, we may ask again what predictive power on the EVI scales such identifications had for those students who expressed them. When the ideology scale was employed as an independent variable and the scales were used as dependent variables, no significant scale score differences emerged between students of differing liberal/conservative identification.

However, and most unexpectedly, political party identification proved to be a strong indicator of attitude differences (see Table 13). There were significant differences by political party for all scales except Trust in Business. Republicans were reliably different from Democrats in their higher affirmation of the Support for Free Enterprise scale, in their stronger rejection of the Economic Alienation scale, in their lesser affirmation of government's responsibility for social welfare, in their opposition to government's role in price setting and to powerful unions, their greater tendency to agree that workers receive fair treatment, and their lesser agreement with items attacking the economic status quo. While at one level, this result is just what one would have expected, at another level, that of the expectations generated by the Phase I data, this result is extraordinary.

It is uncertain why political party affiliation should have become so much stronger an economics attitudes predictor in Phase II. It is true that we are dealing with a larger and slightly older sample, and that may have something to contribute to this effect. It is also possible that the presidential election campaign, in which three quarters of students expressed strong or moderate interest, influenced those who already had some tendency toward partisanship.

D. Locus of Control

Another variable that was explored measured youths' attributional tendencies. Respondents were asked to indicate their preferences for individual versus societal explanations for differential economic success of individuals, resulting in a "locus of control" indicator. It ranged from a mostly internal orientation—the tendency to attribute economic differences to factors internal to the individual—to a mostly external orientation, or tendency to view differences as resulting from factors external to the individual. The "attribution" question is presented below. Figure 7 displays attribution means for both students and their teachers.

It is interesting to note that students rank as unimportant a factor such as socioeconomic status which, sociologically, has such predictive power. Teachers apparently give far more weight to the family background variable than do their students, perhaps the main significant respect in which they differ with them, although differences on the race and personal initiative items should also be remarked.

Earlier we stated that a primary purpose of the economics textbook that was utilized in this study is to enhance students' feelings of economic efficacy. Scale 3 of the EVI may best be described as a measure of economic alienation and powerlessness or, to turn the coin over, of economic efficacy. And, of course, the feeling that a person's fate is individually or internally controlled, is commonly thought of as a feature of feelings of personal efficacy, while the feeling that one's fate is controlled by societal or external factors may be supposed to be a feature of feelings of personal inefficacy. For this reason, we sought to determine the relationship between students' responses to Scale 3 of the EVI and their internal versus external attributional tendencies.

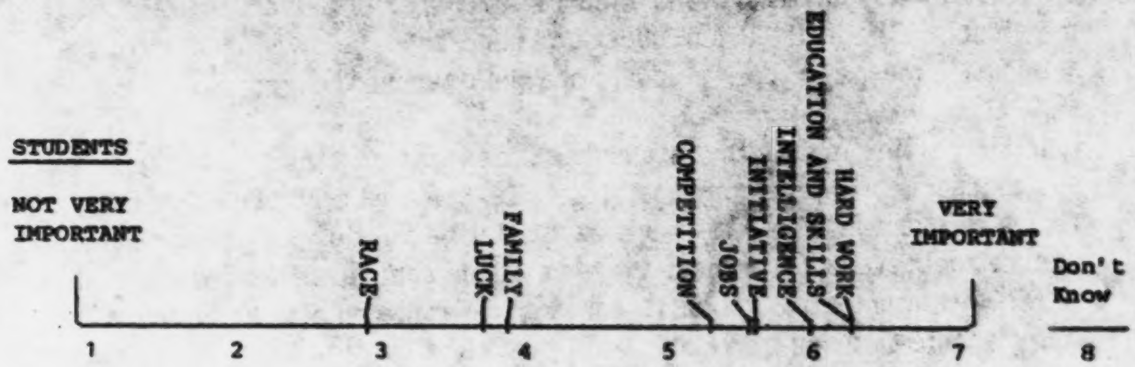
Seven of the nine elements in the attribution question were utilized to create an internal versus external "locus of control" variable, conforming to the following four cells:

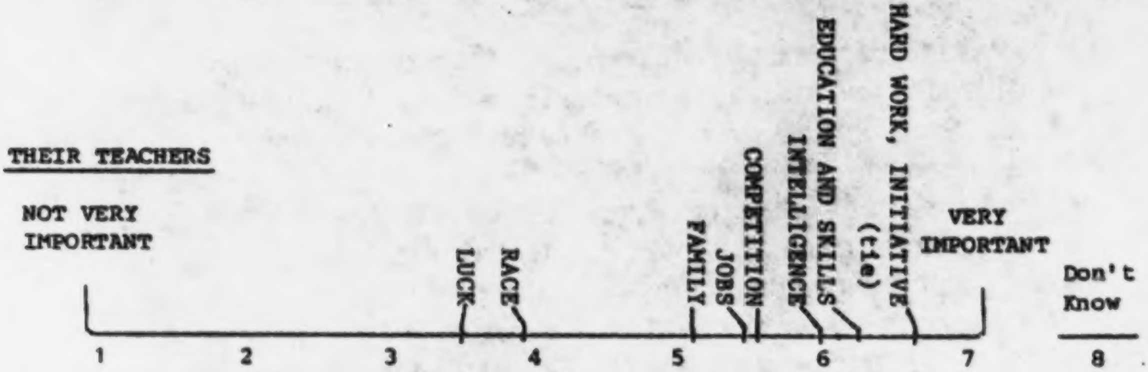
	Internal	External
(Stable)	c. intelligence d. education, skills	f. qualified competitors b. available jobs
(Unstable)	e. works hard g. has initiative	a. luck

Internal factors (c.,d, e.,g.) were given a plus value, summed, and divided by four; external factors (f.,b.,a.) were summed, given a minus value, and divided by three. The internal and external values were then combined to form one "locus of control variable." The "locus" variable had a range of -1.80 to +4.80, and a mean of 1.4. It was thus skewed toward the internal locus.

FIGURE 7: ATTRIBUTION/LOCUS OF CONTROL RESPONSES

Q1. Some people are economically much better off (have better jobs, income, and housing, for example) than others. The following factors have been suggested as explanations for why such differences between people come about. Please give your opinion about the importance of each one. The more important you think a factor is, the higher the number, up to 7, that you will use. The less important you think a factor is, the lower the number.





How important is each factor below in explaining how economically well off (successful or unsuccessful) an adult individual is?

STUDENTS			TEACHERS
3.7	a.	luck (good luck, bad luck)	3.5
5.8	b.	the number of jobs available in our society	5.5
6.0	c.	a person's level of intelligence	6.0
3.9	d.	a person's family background (for example, rich parents and childhood advantages; poor parents, disadvantages)	5.1
6.3	e.	a person's willingness to work hard	6.7
5.4	f.	the number of well-qualified persons competing for jobs	5.6
5.9	g.	personal initiative (for example, will power, determination)	6.7
2.8	h.	a person's race or ethnicity (advantage--or disadvantage [for example, discrimination] because of the group one comes from)	3.9
6.3	i.	a person's education and skills	6.3

"Locus" means were compared for the "text versus no text" subpopulations and showed statistically insignificant differences (a mean of 1.4337 versus 1.4369). Note, however, that the "text versus no text" groups registered change at the posttest, with Scale 3 scores displaying a statistically significant decrease in alienation scale scores for the text user group (see Table 2).

Respondents to the "Locus of Control" variable were divided into high, medium and low groups, relative to the "internal control" axis of the construct. Means on Scale 3 were then computed for each group:

Internal Locus	**Scale 3 Mean**
LOW	3.09
MEDIUM	2.62
HIGH	2.45

Level of significance for between groups difference: p< .0001

Thus, we can see that the lower the degree of internal locus of control, the higher the affirmation of the "alienation and powerlessness" items of Scale 3. Note that despite the association between scale 3 and locus of control, and despite the fact that the scale 3 scores of text users have changed over time, the underlying locus of control orientation of the respondents appears to be stable.

E. Information Sources

The Phase II Posttest Questionnaire asked students both to give a rank order to selected information sources by prestige, that is, to indicate which was to be regarded as likely to be best informed about important issues; then to rank the same list in terms of which the respondent considered to be his or her own best personal information source. Our goal was to see whether students who accorded teachers greater prestige and value as a personal information source would be more influenced by their teachers, as evidenced by greater support of the text values. The responses to the information source questions appear below:

Prestige: Who is best informed?

Rank		Mean
1.	the media (television and newspaper reporters)	1.7
2.	leaders of the business community	2.2
3.	your family/parents	3.6
4.	teachers	3.7
5.	clergy (ministers, priests, rabbis)	4.3
6.	your fellow classmates	5.3

Utilization: Who are the respondent's best sources?

1.	the media	2.1
2.	parents	2.5
3.	teachers	3.4
4.	classmates	3.8
5.	business leaders	4.2
6.	clergy	4.9

Combined rank (prestige + utilization):

1. the media
2. parents
3. business leaders
4. teachers
5. classmates
6. clergy

From the point of view of curricular effects, the comparatively low ranking of teachers as an information source, and the high rankings for media sources and parents, suggest a possible limitation on the role of the curriculum as a conveyor of attitudinal change. (A comparison that might profitably have been pursued, but was not in this study, was prestige and utilization of various written information sources, such as textbooks, magazines and newspapers.)

To further explore the relationship between student views of teachers as information sources, and their economic attitude differences, the combined rank responses were grouped into those showing high, medium, and low ratings of teachers. No significant attitude differences emerged between these three groups when their EVI scale scores were compared.

F. Teacher Differences

Teachers may exert an influence over the opinions of their students, whether students consciously accord teachers high prestige and influence or not. We thus more directly examined the possibility of teacher effects by comparing the attitudes of students with different instructors. We speculated, for example, that a teacher's own score on the EVI scales might be a factor: we could possibly see students' attitudes becoming more like those of their teachers, a pattern that might hold through a wide range of teacher value orientations. Or, we might see much larger change scores for the classrooms of some teachers than others. In this event, the collateral data provided by teachers as to how they used the text could be consulted to see if there were any systematic differences in text use associated with the observed differences in attitude impacts.

For an analysis of the teacher variable, the Cedar Rapids teachers who had used the text *Our Economy* for a full term were utilized. This supplied a large pool of student respondents, all in one city, from a teacher sample with a 100% response rate to the teacher questionnaire. Thus, where differences occurred, the teacher data could be linked to the data from the teacher's students.

Means were calculated for the groups of students who had studied with the seven relevant economics teachers. A Scheffé analysis was employed to determine which groups were significantly different at the .05 level (that is, a probability of no more than 1 in 20 that the difference measured was due to chance). Of the seven groups, groups 1 and 3 were significantly different from group 2 on Scale 4, but on the other seven scales, the Scheffé procedure showed no two groups significantly different at the .05 level. This then, was a largely negative finding: differences in teachers did not seem to make for differences in attitudes for this group.

The finding that there was little in the way of teacher-specific attitude impacts is in a sense surprising, for the curriculum development literature in recent years has placed strong emphasis on the the ability of teachers often to ignore or subvert the formally prescribed curriculum and its texts (Goodlad, 1977). In addition, primacy has frequently been ascribed to a largely teacher-defined and classroom-specific "instructional situation," with individual classrooms and ability groups viewed as key social units which must be incorporated into analytic models for educational research (Barr and Dreeben, 1983).

However, the lack of strong teacher effects may be less surprising when placed in the context of the other information we know about the teachers in this group. They gave similar reports of use of their classroom materials (degree of reliance on the text as contrasted to other teaching materials; number of chapters studied; choice of chapters to be studied). Moreover teachers generally reported (see Section 6) a high degree of satisfaction with *Our Economy*. They gave it high marks for its efficacy in a variety of areas, and they affirmed that they felt comfortable using the text.

Given the close fit perceived between the text and teacher and student needs, it would not be surprising to find a close correspondence between the formal economics curriculum and what was actually taught in the classroom. If so, there would be, for this group, less reason to expect large teacher-associated differences in the impacts of the text. The question of teacher impact, then, remains unresolved by this study.

6. Findings from the Teachers in the Study

A. Teacher Background and Characteristics

Sixteen economics teachers responded to the request to complete the Teacher Questionnaire. This number encompassed 100% of the full-term condition Our Economy instructors for the Cedar Rapids and Durango sites, but only two (one for each of the participating schools) of the seven Minneapolis instructors who taught students in the sample.

Of the sixteen teachers, 12 were males, three were females, and one did not answer the sex question. Fifteen reported their race as white, and one did not respond to the race question. When asked about years of full-time teaching experience, the range was from 2 years to 33 years, with a mean of 14.4 .

Nine of the teachers held a master's degree; four had a B.A. plus graduate credits; two had a B.A. only; and one did not respond to the question. Teachers were asked about their academic background in economics. Ten of them reported that they had taken "one or two" university courses in economics, four reported "three to five," and one "six or more."

When asked what social studies subjects they had most frequently taught in the last year; 12 had most frequently taught American History, two had most frequently taught government, and 2 did not respond. In terms of second most frequently taught subject, eight cited economics, two government, two geography, one American history, and one current events.

Finally, teachers were asked about their political philosophies, and asked to compare their political orientation to that of their students. Generally, teachers thought of themselves as somewhat more liberal than their students. On a 7-point scale, ranging from 1 for Very Liberal to 7 for Very Conservative (with point 4 standing for "Moderate, middle of the road"), the mean for teachers was 3.4 (between Slightly Liberal and Moderate) and the mean assigned to their students was 4.6, between Moderate and Slightly Conservative. (While students themselves responded to this same scale, the large number of Don't Know response showed that the ideology labels were, apparently, not highly meaningful to them.)

Characteristics of teacher respondents in this survey conform closely to those reported in the 1981 National Survey of Economic Education (Clark and Barron, 1981) whose composite economics teacher is typically white, male, over 35, with over ten years teaching experience and, in 57% of cases, a master's degree. Clark and Barron also confirm the recent trend of at least some academic background in economics for most junior and senior high school economics teachers (although such coursework is typically not extensive and usually does not include work in methods of teaching economics).

In view of the black-white differences seen on Scales 1 and 3 for the overall sample, the lack of minority group teachers in the sample is a point of interest. Given the even more dramatic male versus female differences observed both at Pre- and Posttest, and the suggestion that economics as a subject matter is often gender-stereotyped (Jackstadt and Grootaert, 1980), the extremely low female representation among economics teachers in the sample should be noted also.

B. Teacher Evaluation of Our Economy.

Teachers were asked to assess the content of *Our Economy* with respect to issues of value. Fourteen teachers responded to this question; their answers are given in percentage form:

Our Economy--

1. suffers from valuational bias	0.0%
2. has explicit value stance but materials presented without bias	14.3%
3. has implicit value stance but materials presented without bias	57.1%
4. text is value-neutral or value-free	28.6%

Teachers were next asked how comfortable they personally were with the value orientation (or lack thereof) of the text. Not unexpectedly, given the consensus that *Our Economy* does not have a value bias, teachers were overwhelmingly comfortable with the orientation of the text:

Teacher was--

1. extremely comfortable	13.4%
2. comfortable	73.3%
3. somewhat comfortable	13.3%
4. extremely uncomfortable	0.0%

Teachers were asked to rate *Our Economy*'s effectiveness, on a 7-point scale, in transmitting knowledge, interest in economics, a sense of economic efficacy, and attitudes and values. The overall rating, combining these four elements on a scale of 1 = lowest, 7 = highest, yielded a mean of 4.8, with the four constituents receiving the following ratings:

Text effectiveness in transmitting--	Mean	Median
1. knowledge	5.4	6.0
2. interest in economics	4.3	4.5
3. sense of economic efficacy	4.6	5.0
4. attitudes and values	4.7	5.0

Thus, the teacher respondents affirmed the overall effectiveness of the text, gave it its highest rating in terms of the transmission of economic knowledge, its lowest, but still affirmative, rating with respect to its effects in enhancing interest in economics as a subject area, and gave *Our Economy* an intermediate rating for its effectiveness in transmitting the sense of economic efficacy and other values and attitudes.

As a final point of inquiry, the Teacher Questionnaire stepped back from *Our Economy* as a specific text, and asked of the economics teachers both how important they considered economics instruction to be for adolescents, and how important vis-à-vis other components of the social studies curriculum. (It should be remembered that teacher respondents tended to teach a variety of social studies courses, and that for none of them was economics the most frequently taught subject.)

As for the importance of economics instruction for adolescents, 81% of teachers ranked it as very important, 19% as of some importance, and 0% as either somewhat or very unimportant.

When asked to rank economics as less, equally, or more important, than each of seven elements in a list of competing subjects, teachers ranked economics as less important in no instances. They indicated that Economics is equally as important as Civics or American Government, Consumer Education, American History, or Business Education. They indicated that Economics is more important than World History, Ethnic Studies, or Psychology. All in all, teacher respondents, even though they had not themselves had a large amount of coursework in economics, evidenced considerable belief in the importance and appropriateness of economics subject matter for their students. This commitment to the teaching of economics should give added weight to their judgments of the effectiveness and quality of *Our Economy*.

7. Conclusions and Recommendations

The central finding of this study is that *Our Economy: How it Works* has a decided valuational and attitudinal impact on its users. Specifically, examination of post-instructional attitudes of the respondents in the main samples shows statistically significant differences between text users and non-users on EVI Scales 1, 2, 3, 7 and 8. The analyses show text users to be more supportive of the scale affirming the American economic system, more supportive of the Trust in Business scale, more emphatic in their rejection of the Economic Alienation and Powerlessness scale, stronger in their support for the Workers Receive Fair Treatment scale, and less supportive of the Against the Economic Status Quo scale. Since scales 5 and 6 are peripheral to the text's principal concerns, and since *Our Economy* suggests no particular values stance vis-à-vis Scale 4, the changes seen reflect, in the expected direction, those which the text might be expected to have.

While these changes are, in the accepted technical sense of the term, statistically significant, the question remains whether they are significant in a non-statistical sense. Their statistical significance tells us that these observed outcomes are not merely effects of chance. We may say, in addition, that these outcomes are systematic and interpretable, given the theoretical assumptions that have informed the study, and in that sense they are theoretically significant as well. But are they of a magnitude to have a practical significance, or are they in fact trivial? The lack of an extensive literature on the attitudinal effects of the economics curriculum renders it difficult to specify a criterion for grading the magnitude of attitude change associated with a given text. However, we would suggest that changes that are modest in absolute terms, in the range of .2 on a scale of 1-7, are indeed an impressive attitudinal impact. We would expect degree of attitude change to be much smaller than the cognitive gains of instruction. If an area such a political education or civics is a good analogue, we should take special note of the less than dominant role that a particular textbook and one or two courses of instruction are likely to have on the intense and fast-changing world of the adolescent, and adjudge even quite small values changes as noteworthy (Jennings and Niemi, 1974). In this context, the impact of *Our Economy* on attitudes after as little as a *half term* of instruction is especially impressive. These changesare impressive also in the context of the book's strategy of the exclusive presentation of facts--of economic concepts illustrated by case studies--and the avoidance of value recommendations.

There is another way of looking at a change of .20 or .25, and that is to express it in another metric, whose meaning may be more familiar. We might, for example, think of these changes in terms of the metric Scholastic Aptitude Test scores. Of course, we cannot strictly compare EVI and SAT scores, since there are no "correct" answers for attitude items. But we could report EVI scale scores on an SAT-style metric, thus, perhaps, making the changes easier to visualize. Since each EVI scale ranges from 1 to 7, it contains (if we add a constant of one to each point on the scale and multiply times one hundred) the same number of proportionate gradations as the SAT Verbal or Math score, which runs from 200 to 800. Thus, taking Scale 1 for an example, the Posttest difference between full-term text users and non-users (5.83 versus 5.56) would become the difference between 683 and 656, a difference, on the SAT metric, of 27. Again, with the caveat that there are categorical differences between attitude and achievement items, an EVI magnitude of .2 is equivalent to an SAT magnitude of 20 points. The much-discussed decline in SAT mathematics achievement from 1972-1982 involves a downward trend from 485 to 470, or 15 points over a period of 10 years. Total SAT decline from 1964 to 1984 on a 400-1600 point scale (combining verbal and mathematics achievement) shows a shift of 80 points (thus 40 on the 200-800 metric) over a full two decades. For those who are accustomed to thinking in terms of such score reporting formats as that of the SAT, expression of each EVI one-tenth of a point as ten SAT units, may be useful.

A. The EVI Scales: New Items and Old

The Phase II research gave strong support to the Economics Values Inventory as developed in Phase I. The items, taken individually, and as multi-item scales, continued to work well, and scales maintained their moderately high reliabilities when applied to the data from the new and much larger student group which was used in Phase II of the study. In addition, Phase II added substantially to the evidence for the construct validity of the scales. The continued pattern of relationships seen between economic attitudes of the respondents and such variables as economic knowledge, socioeconomic status, and economics instruction, argue for the sensitivity of the scales to meaningful attitudes differences. New validity indicators were developed in Phase II also. Thus, for example, the use of the internal versus external locus of control construct was employed to validate Scale 3 ("Economic Alienation and Powerlessness").

While it must be said that the scales worked well, it also may be said that some are of less central importance than others. In particular, Scale 5 (Against Government Role in Price Setting) and Scale 6 (Against Powerful Unions) are somewhat marginal, covering as they do narrow topic areas of peripheral concern to junior high school economics, and eliciting, as also they do, a somewhat higher level of "Don't know" responses than do the other six scales. Nevertheless, given that these scales are reliable and extend the content range of the EVI, and given that the EVI is comparatively short and easy to administer in its present form, we recommend that all eight of the scales be retained.

In Phase I of the study, we emphasized that instrument development is a continuing process, and in Phase II new items were added to try to extend the content validity of the EVI by giving greater coverage to government's economic role, especially to the idea of government as a regulator and producer. However, here we found that pre-existing attitudes were not well developed among the respondents, presumably because issues such as government regulation were distant from their perceptions and experience.

At the Posttest, other new items in this topic area, for the group that had received economics instruction in particular, seemed to perform somewhat better, although "Don't know" responses remained high. Our recommendation is that while the possibility of new EVI items should be left very much open, new items in the government role domain should be thought of primarily in terms of use with students older than the junior high school age group. Such a topic area might prove especially important in the further refinement of the Senior High School Economics Values Inventory (O'Brien and Ingels, 1984; Appendix 4).

B. The EVI Scales: Scale Labels

In Phase I, we suggested two sorts of labels for the scales, a neutral label, and one which gave a notion of the direction of attitudes for the study population (O'Brien and Ingels, 1984, Appendix 1). Since overall scale scores showed the same direction in Phase II (despite a new respondent population), we have continued to use, for their clarity for reporting purposes, the directional labels in Phase II. Thus we have spoken of a Free Enterprise or American Economic System scale, a Trust in Business Scale, an Economic Alienation and Powerlessness Scale, and so on. However, for other purposes, a neutral label is clearly preferable, and the Foundation has suggested new scale labels as follows:

Scale 1: **The Economy**
Scale 2: **Role of Business in the Economy**
Scale 3: **Role of the Individual in the Economy**
Scale 4: **Role of Government in Social Welfare**
Scale 5: **Role of Government in Establishing Prices**
Scale 6: **Role of Unions in the Economy**
Scale 7: **Fairness of the Economy**
Scale 8: **Satisfaction with the Economy**

These labels have been used for the presentation of the Economics Values Inventory in the Appendix of this report.

C. Recommendations for Further Applications of the Economics Values Inventory

Though developed for the specific purpose of the evaluation of the values and attitudes impact of *Our Economy*, it is to be stressed that the Economics Values Inventory should be of value to economics educators for a variety of other purposes. Several valuable uses are suggested by this research.

One such use to which the EVI might be put is to establish a national norm for junior high school economics attitudes. In neither Phase I nor Phase II of this research was it appropriate to seek a *representative* sample of junior high school age youth. Thus, while the evidence gathered concerning the content of youth economic attitudes is both intriguing and suggestive, it is not definitively generalizable to the nation as a whole. It would be useful not only to obtain a national norm for the EVI, but also to follow attitudinal trends and changes over time by testing a representative sample on an annual or biennial basis.

The teacher and student data collected thus far suggest specific areas in which the EVI might be used to help clarify the factors related to economic attitude acquisition and change, and the linkages between attitudes and economic behavior. It would be useful, for example, to link EVI scale scores with measures of in-school and out-of-school behavior. It would be useful to gain further information about the parents of some selected group of junior high school respondents, including parental scores on the EVI. Such information could be used, for example, to explore the matter of gender differences in economic attitudes, and to understand the comparative weight of and interaction between school and home environments in economic socialization. Sex differences could also be explored with somewhat older students, in the course of refining the senior high school version of the EVI.

We are confident that the EVI can be a substantial tool for exploring the many values and attitudes questions in contemporary economics education.

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APPENDICES

1. The Economics Values Inventory (EVI)
2. The EVI in a Form for Classroom Use
3. Tables
4. Senior High School Version of the EVI
5. Student Posttest Questionnaire, with Item Means and Response Frequencies

APPENDIX 1:

THE ECONOMICS VALUES INVENTORY (EVI)

THE ECONOMICS VALUES INVENTORY

The Economics Values Inventory (EVI) is a self-administered measure of attitudes and values concerning economic issues, for use with junior-high-school-age youth (seventh, eighth, and ninth graders). It was developed with a diverse sample of almost 1100 youth from 35 classroooms in all regions of the country.

The EVI consists of eight scales, each measuring values in a different substantive area within the general topic of economics. The scales were empirically derived from student responses to a large pool of items, using factor analytic techniques. Scale reliabilities (Cronbach's alpha) range from .5 to .8. Strong evidence of the construct validity of the EVI is found in its sensitivity to values differences in different criterion subgroups of students, such as youth of different socio-economic backgrounds; with different degrees of economic knowledge; and with different amounts of personal experience with the economy.

The EVI is easily administered in a single class period. It yields eight values scores, and scores are easily computed by summing the responses to all items on a particular scale and dividing that sum by the total number of items in the scale, i.e., by computing an average of the scale item responses.

The research on the EVI indicates the necessity of including the somewhat lengthy introduction to the items that appears below. The introduction is important because it establishes a common frame of reference and shared vocabulary for the youthful respondents.

On the following pages the scales that comprise the Economics Values Inventory are first presented, scale-by-scale. Then the EVI, in the form in which we recommend it be administered in the classroom, is shown.

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THE ECONOMICS VALUES INVENTORY

SCALE 1. THE ECONOMY

1. Resources are always limited, and we must make hard choices about the best way to use them.

2. Profits are essential to our country's economic health.

3. Our society owes much to the contributions of business.

4. If workers want higher wages, they must work harder and produce more.

5. People who blame other people or society for their problems are just copping out.

6. My freedom to choose my own occupation is very important to me.

7. It's the duty of people to do their jobs the best they can.

8. Competition between businesses makes for the lowest prices.

9. A company deserves its profits when they come as the result of doing the best job for less money.

10. If you have a valuable skill, you'll get ahead in our society.

11. Groups of individuals with specialized skills, working together, can produce better products than individuals working alone.

12. Our economy needs more people who are willing to save for the future.

SCALE 2. ROLE OF BUSINESS IN THE ECONOMY

13. Most businesses won't sell products they think are unsafe.

14. Government should listen more to what the business community has to say.

15. Businesses could provide more jobs, goods, and services if they didn't have to pay so much in taxes.

16. Advertising helps consumers to make intelligent choices.

17. Most people like their jobs.

SCALE 3. ROLE OF THE INDIVIDUAL IN THE ECONOMY

18. It's no use worrying about the economy; I can't do anything about it anyway.

19. Getting ahead is mostly a matter of luck.

20. It's foolish to do more than you have to in a job.

21. Having the freedom to start my own business really means having the freedom to take advantage of others.

22. Being in business means taking unfair advantage of others.

23. Profit is a sign that someone is being taken advantage of.

24. The way our economic system is set up, nobody has a chance to get ahead any more.

SCALE 4. ROLE OF GOVERNMENT IN SOCIAL WELFARE

25. It is the responsibility of the government to take care of people who can't take care of themselves.

26. The poor and the ill have a right to help from the government.

*27. A person who cannot find a job has only himself to blame.

28. It should be the duty of government to be sure that everyone has a secure job and a decent standard of living.

29. The unemployed shouldn't blame themselves for their situation: it's the fault of the economic system.

*30. Taking care of the poor and the sick is the job of families and churches, not the job of the government.

SCALE 5. ROLE OF GOVERNMENT IN ESTABLISHING PRICES

*31. Companies should only be allowed to charge a government-controlled price for their products

32. It's not the business of the government to control prices.

SCALE 6. ROLE OF UNIONS IN THE ECONOMY

33. Unions are too powerful.

*34. We'd all be better off if labor unions were stronger.

35. Employers should have the right to hire non-union workers if they want to.

---

* Indicates reverse scoring item.

SCALE 7. FAIRNESS OF THE ECONOMY

36. The average worker today is getting his or her fair share.

*37. The average worker is getting less than his or her fair share.

*38. Most companies don't give employees a fair share of what the company earns.

39. Most companies give employees a fair share of what the company earns.

SCALE 8. SATISFACTION WITH THE ECONOMY

40. America's wealth is far too unequally shared.

41. The situation of the average person is getting worse, not better.

42. There are few real opportunities for the average person to start a business in America today.

43. We need a way to make incomes more equal in this country.

44. One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.

---

* Indicates reverse scoring item.

APPENDIX 2:

THE EVI IN A FORM FOR CLASSROOM USE

ECONOMICS VALUES INVENTORY

I strongly disagree with the statement						I strongly agree with the statement	Don't Know
1	2	3	4	5	6	7	8

On the next three pages there are statements that you may agree or disagree with. We're interested in learning about your feelings concerning these statements. All of them have to do with the American economy, or how we make, buy, and sell things. We are all part of the economy. Businesses and government are part of the economy too.

When you buy a record or ride on a bus or go to the dentist, you are taking part in the economy. When a business makes something, advertises its product, or sets a price, it is taking part in the economy. The government takes part in the economy too, when it provides a service such as delivering the mail, or when it makes rules that businesses must follow. When you answer the questions below, it will give us a chance to learn what you are feeling about economic issues.

Here's an example:

_____ If I shop and compare before I buy, I can save money.

If you feel strongly that "If I shop and compare before I buy, I can save money," you would write a "7" in the space before that statement. If you disagree slightly you would write a "3" next to the statement. If your feelings are no stronger one way than the other, you would write a "4" next to the statement.

Maybe the statement is one you don't understand, or is about something you've never really thought about and have no feelings about. If so, write an "8" for "Don't Know" next to the statement.

There are no right or wrong answers here. Please just tell us how you feel, and what you believe, about each statement. Now let's turn to the next page--and begin!

ECONOMICS VALUES INVENTORY

I strongly
disagree with
the statement

I strongly
agree with
the statement

Don't
Know

1 2 3 4 5 6 7 8

_____ 1. The unemployed shouldn't blame themselves for their situation: it's the fault of the economic system.

_____ 2. Resources are always limited, and we must make hard choices about the best way to use them.

_____ 3. One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.

_____ 4. The average worker today is getting his or her fair share.

_____ 5. The average worker today is getting less than his or her fair share.

_____ 6. It's the duty of people to do their jobs the best they can.

_____ 7. America's wealth is far too unequally shared.

_____ 8. There are few real opportunities for the average person to start a business in America today.

_____ 9. The poor and the ill have a right to help from the government.

_____ 10. It is the responsibility of government to take care of people who can't take care of themselves.

_____ 11. Unions are too powerful.

_____ 12. We need a way to make incomes more equal in this country.

_____ 13. Profits are essential to our country's economic health.

_____ 14. Our society owes much to the contributions of business.

_____ 15. Being in business means taking unfair advantage of others.

_____ 16. The way our economic system is set up, nobody has a chance to get ahead any more.

_____ 17. My freedom to choose my own occupation is very important to me.

_____ 18. Competition between businesses makes for the lowest prices.

_____ 19. Businesses could provide more jobs, goods and services if they didn't have to pay so much in taxes.

_____ 20. It's foolish to do more than you have to in a job.

ECONOMICS VALUES INVENTORY

I strongly disagree with the statement						I strongly agree with the statement	Don't Know
1	2	3	4	5	6	7	8

_____ 21. A person who cannot find a job has only himself to blame.

_____ 22. Most companies don't give employees a fair share of what the company earns.

_____ 23. Most companies give employees a fair share of what the company earns.

_____ 24. Having the freedom to start my own business really means having the freedom to take advantage of others.

_____ 25. It's no use worrying about the economy; I can't do anything about it anyway.

_____ 26. Our economy needs more people who are willing to save for the future.

_____ 27. A company deserves its profits when they come as the result of doing the best job for less money.

_____ 28. If workers want higher wages, they must work harder and produce more.

_____ 29. Companies should only be allowed to charge a government-controlled price for their products.

_____ 30. Profit is a sign that someone is being taken advantage of.

_____ 31. Advertising helps consumers to make intelligent choices.

_____ 32. Most people like their jobs.

_____ 33. Getting ahead is mostly a matter of luck.

_____ 34. The situation of the average person is getting worse, not better.

_____ 35. We'd all be better off if labor unions were stronger.

_____ 36. If you have a valuable skill, you'll get ahead in our society.

_____ 37. Taking care of the poor and the sick is the job of families and churches, not the job of government.

_____ 38. It's not the business of government to control prices.

_____ 39. Most businesses won't sell products they think are unsafe.

_____ 40. It should be the duty of the government to be sure that everyone has a secure job and a decent standard of living.

ECONOMICS VALUES INVENTORY

I strongly disagree with the statement						I strongly agree with the statement	Don't Know
1	2	3	4	5	6	7	8

_____ 41. Government should listen more to what the business community has to say.

_____ 42. Employers should have the right to hire non-union workers if they want to.

_____ 43. People who blame other people or "society" for their economic problems are just copping out.

_____ 44. Groups of individuals with specialized skills, working together, can produce better products than individuals working alone.

APPENDIX 3:

TABLES

APPENDIX 3: LIST OF TABLES

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TABLE 1

CHARACTERISTICS OF PHASE II STUDENT SAMPLE

Total N = 1,999 students.

Pretest N = 1911; Posttest N = 1711. Special Posttest-only group, N = 88.

By site:	Cedar Rapids N =	1231	
	Durango	226	
	Minneapolis	454	(Plus Posttest-only group, N = 88).
By Posttest Comparison Conditions:			
	Full term of text N =	726	
	Half term of text	220	
	No Economics	585	
	Alternative Economics	180	(Plus Posttest-only group, N = 88).
By Race	Black N =	139	
	White	1525	
	Hispanic	40	
	American Indian	39	
	Other	55	
	No Information	113	
By Sex	Male N =	913	
	Female	895	
	No Information	103	

By Site and Comparison Conditions:

Cedar Rapids = Full term text vs. No Text
and Half term text

Durango = Full term text vs. No Text

Minneapolis = Full term text vs. Alternative Economics Materials
and Economics Instruction with Pre- and Posttest, vs. Posttest only.

Mean age = 14 years

TABLE 2

PHASE II PRETEST - POSTTEST CHANGE: ANALYSIS OF COVARIANCE BY TEXT USERS AND NON-USERS AND BY FULL-TERM VERSUS HALF-TERM ECONOMICS INSTRUCTION

VALUES SCALE	p VALUE FOR MAIN EFFECTS		MEANS		
	Duration	Text Use	Text Yes	Text No	
1. Support for American Economic System	.952	.000	5.83	5.56	full term
			5.84		half term
2. Trust in Business	.992	.001	4.77	4.61	full term
			4.73		half term
3. Economic Alienation and Powerlessness	.007	.037	2.56	2.70	full term
			2.73		half term
4. Government is Responsible for Social Welfare	.411	.730	4.81	4.81	full term
			4.81		half term
5. Against Government Role in Price Setting	.001	.508	4.10	3.99	full term
			4.47		half term
6. Against Powerful Unions	.939	.666	4.69	4.75	full term
			4.83		half term
7. Workers Receive Fair Treatment	.062	.014	3.76	3.50	full term
			3.45		half term
8. Against Economic Status Quo	.008	.049	4.55	4.70	full term
			4.79		half term

Effects significant at .05 are underlined.

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

PHASE II
PRETEST
TABLE 3

Scale Scores of Junior High School Youth with Different Levels of Economic Knowledge Items Correct Out of 7

	VALUES SCALES	0 - 2	3 - 4	5 - 6	7	p level
1.	Support for American Economic System	5.2	5.6	5.7	5.9	.000
2.	Trust in Business	4.9	4.8	4.7	4.5	.000
3.	Economic Alienation and Powerlessness	3.5	3.0	2.6	2.2	.000
4.	Government is Responsible for Social Welfare	4.9	5.1	5.0	4.7	.000
5.	Against Government Role in Price Setting	3.8	3.7	4.3	4.5	.000
6.	Against Powerful Unions	4.3	4.6	4.6	4.8	.000
7.	Workers Receive Fair Treatment	3.2	3.3	3.5	3.8	.000
8.	Against Economic Status Quo	4.9	4.9	4.8	4.4	.000

Percentage of sample:	21%	32%	37%	10%

1 = strongly disagree with scale values

2 = strongly agree with scale values

N = 1911

TABLE 4

PHASE II SCALE MEANS: POSTTEST, TEACHERS vs. STUDENTS

VALUES SCALES	Teachers	Students
1. Support for American Economic System	5.9	5.6
2. Trust in Business	4.1	4.7
3. Economic Alienation and Powerlessness	2.2	2.8
4. Government is Responsible for Social Welfare	4.7	4.8
5. Against Government Role in Price Setting	5.5	4.1
6. Against Powerful Unions	4.6	4.6
7. Workers Receive Fair Treatment	4.0	3.6
8. Against Economic Status Quo	4.1	4.7

1 = Strongly disagree with scale values

2 = Strongly agree with scale values

Teacher N = 16

Student N = 1711

TABLE 5

PRETEST versus POSTTEST SCALE MEANS FOR MINNEAPOLIS USERS OF OUR ECONOMY: HOW IT WORKS

VALUES SCALES	PRETEST	POSTTEST	p level
1. Support for American Economic System	5.4	5.4	N.S.
2. Trust in Business	4.8	4.8	N.S.
3. Economic Alienation and Powerlessness	3.1	3.2	N.S.
4. Government is Responsible for Social Welfare	5.1	4.8	.000
5. Against Government Role in Price Setting	3.7	3.9	N.S.
6. Against Powerful Unions	4.5	4.5	N.S.
7. Workers Receive Fair Treatment	3.2	3.4	.022
8. Against Economic Status Quo	5.0	4.9	N.S.

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

Changes significant at .05 are underlined: non-significance indicated by "N.S."

TABLE 6

PRETEST versus POSTTEST MEANS FOR MINNEAPOLIS ALTERNATE ECONOMICS INSTRUCTION GROUP

VALUES SCALES	PRETEST	POSTTEST	p level
1. Support for American Economic System	5.2	5.2	N.S.
2. Trust in Business	4.6	4.5	N.S
3. Economic Alienation and Powerlessness	3.1	2.8	.021
4. Government is Responsible for Social Welfare	4.8	4.5	.002
5. Against Government Role in Price Setting	4.1	4.3	N.S.
6. Against Powerful Unions	4.4	4.3	N.S.
7. Workers Receive Fair Treatment	3.3	3.6	.020
8. Against Economic Status Quo	4.6	4.6	N.S.

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

Changes significant at .05 are underlined; non-significance indicated by "N.S."

N = 180

TABLE 7: PHASE II POSTTEST SCALE SCORES OF JUNIOR HIGH SCHOOL STUDENTS WITH DIFFERENT RACIAL BACKGROUNDS

VALUES SCALES	BLACK	WHITE	AMERICAN INDIAN	p level
1. Support for American Economic System	5.2	5.7	5.2	.0000
2. Trust in Business	4.8	4.7	4.7	N.S.
3. Economic Alienation and Powerlessness	3.2	2.7	2.9	.0000
4. Government is Responsible for Social Welfare	4.8	4.8	4.7	N.S.
5. Against Government Role in Price Setting	4.0	4.1	4.1	N.S.
6. Against Powerful Unions	4.5	4.6	4.5	N.S.
7. Workers Receive Fair Treatment	3.4	3.6	3.9	N.S.
8. Against Economic Status Quo	4.9	4.7	4.5	N.S.

1 = Strongly disagree with scale values　　N.S. = no significance

7 = Strongly agree with scale values

N = 1711　For Scale 1, Scheffé procedure shows Whites significantly different from both Blacks and American Indians at the .050 level; for Scale 3, Scheffé procedure shows Blacks significantly different from Whites at the .050 level.

TABLE 8: TWO-WAY ANALYSIS OF VARIANCE BY RACE AND TEXT USE, CEDAR RAPIDS SITE, FOR SCALES 1, 3, 4, 7 and 8.

VALUES SCALES	BLACK		WHITE		Significance: Main Effects
TEXT USE:	yes	no	yes	no	
1. Support for American Economic System	5.8	5.3	5.8	5.6	TEXT: .000 RACE: N.S.
2. Trust in Business	----------				
3. Economic Alienation and Powerlessness	2.6	3.1	2.5	2.7	TEXT: .005 RACE: N.S.
4. Government is Responsible for Social Welfare	5.0	5.1	4.8	4.8	TEXT: N.S. RACE: N.S.
5. Against Government Role in Price Setting	----------				
6. Against Powerful Unions	----------				
7. Workers Receive Fair Treatment	3.1	3.2	3.8	3.5	TEXT: .001 RACE: .042
8. Against Economic Status Quo	4.7	5.1	4.5	4.8	TEXT: .006 RACE: N.S.

1 = Strongly disagree with scale values

7 = Strongly agree with scale values   N.S. = not significant

Analysis was run on Scales 1, 3, 4, 7, and 8 only, where likelihood of difference by race was thought greatest.

TABLE 9: PHASE II POSTTEST SCALE SCORES OF MALE AND FEMALE JUNIOR HIGH SCHOOL STUDENTS

VALUES SCALES	MALE	FEMALE	P level
1. Support for American Economic System	5.63	5.62	N.S.
2. Trust in Business	4.55	4.78	.0000
3. Economic Alienation and Powerlessness	2.78	2.66	.0423
4. Government is Responsible for Social Welfare	4.72	4.85	.0147
5. Against Government Role in Price Setting	4.37	3.84	.0000
6. Against Powerful Unions	4.66	4.63	N.S.
7. Workers Receive Fair Treatment	3.70	3.48	.0007
8. Against Economic Status Quo	4.56	4.80	.0001

1 = Strongly disagree with scale values

N.S. = not significant

7 = Strongly agree with scale values

N = 1711

TABLE 10: SCALE SCORES OF PHASE II POSTTEST STUDENTS WITH DIFFERENT LEVELS OF ECONOMIC KNOWLEDGE

VALUES SCALES	Extent of Economic Knowledge (Number of Items Correct Out of 7)				
	0 - 2	3 - 4	5 - 6	7	p level
1. Support for American Economic System	5.1	5.4	5.8	6.0	.0000
2. Trust in Business	4.9	4.7	4.6	4.5	.0001
3. Economic Alienation and Powerlessness	3.3	3.0	2.5	2.3	.0000
4. Government is Responsible for Social Welfare	4.8	4.8	4.8	4.7	N.S.
5. Against Government Role in Price Setting	3.8	3.8	4.2	4.6	.0000
6. Against Powerful Unions	4.3	4.5	4.8	4.9	.0000
7. Workers Receive Fair Treatment	3.3	3.4	3.7	4.0	.0000
8. Against Economic Status Quo	4.7	4.9	4.6	4.3	.0000

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

N = 1711

TABLE 11: PHASE II POSTTEST SCALE SCORES OF JUNIOR HIGH SCHOOL STUDENTS OF DIFFERENT SOCIOECONOMIC STATUS*

VALUES SCALES	SOCIOECONOMIC STATUS (Lower) 1	2	3	(Higher) 4	p level
1. Support for American Economic System	5.45	5.52	5.75	5.71	.0000
2. Trust in Business	4.68	4.68	4.69	4.56	N.S.
3. Economic Alienation and Powerlessness	3.06	2.91	2.58	2.47	.0000
4. Government is Responsible for Social Welfare	4.95	4.87	4.78	4.53	.0000
5. Against Government Role in Price Setting	4.26	4.10	3.83	4.06	.0048
6. Against Powerful Unions	4.22	4.35	4.68	4.82	.0000
7. Workers Receive Fair Treatment	3.32	3.49	3.70	3.83	.0001
8. Against Economic Status Quo	5.05	4.80	4.58	4.41	.0000

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

*Socioeconomic Status (SES) is a composite variable with four components: Mother's and Father's education and profession.

N = 1711

TABLE 12

Scale Scores of Junior High School Students with Different Levels of Interest in Public Affairs (Posttest)

VALUES SCALE	High Interest	Medium Interest	Low Interest	p
1. Support for American Economic System	5.8	5.6	5.4	.0000
2. Trust in Business	4.7	4.6	4.7	N.S.
3. Economic Alienation and Powerlessness	2.5	2.7	3.0	.0000
4. Government is Responsible for Social Welfare	4.8	4.7	4.8	N.S.
5. Against Government Role in Price Setting	4.2	4.1	4.1	N.S.
6. Against Powerful Unions	4.8	4.7	4.5	.0495
7. Workers Receive Fair Treatment	3.7	3.6	3.4	.0257
8. Against Economic Status Quo	4.6	4.6	4.9	.0017

N = 1711

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

TABLE 13

Posttest Scale Scores of Junior High School Students with Different Political Party Identifications

VALUES SCALE	Strongly Republican	Slightly Republican	Slightly Democratic	Strongly Democratic	p
1. Support for American Economic System	5.8	5.7	5.5	5.6	.0000
2. Trust in Business	4.8	4.7	4.6	4.7	N.S.
3. Economic Alienation and Powerlessness	2.5	2.6	2.7	2.9	.0004
4. Government is Responsible for Social Welfare	4.6	4.7	4.9	5.1	.0000
5. Against Government Role in Price Setting	4.3	4.0	4.1	4.0	.0389
6. Against Powerful Unions	5.0	4.8	4.6	4.2	.0000
7. Workers Receive Fair Treatment	4.0	3.7	3.6	3.1	.0000
8. Against Economic Status Quo	4.3	4.6	4.6	5.1	.0000

N = 1711

1 = Strongly disagree with scale values

7 = Strongly agree with scale values

APPENDIX 4: SENIOR HIGH SCHOOL VERSION OF THE ECONOMICS VALUES INVENTORY

SENIOR HIGH SCHOOL VALUES INVENTORY

1. PERSONAL ECONOMIC POWER

1. Being in business means taking unfair advantage of others.
2. Having the freedom to start my own business really means having the freedom to take unfair advantage of others.
3. Profit is a sign that someone is being taken advantage of.
4. Getting ahead is mostly a matter of luck.
5. It's no use worrying about the economy; I can't do anything about it anyway.
6. The way our economic system is set up, nobody has a chance to get ahead anymore.
7. It's foolish to do more than you have to in a job.

2. HOW WORKERS ARE TREATED

* 8. Most companies give employees a fair share of what the company earns.

9. Most companies don't want to give employees a fair share of what the company earns.

* 10. The average worker today is getting his or her fair share.

11. The average worker today is getting less than his or her fair share.

3. "PATRIOTIC" BUSINESS ATTITUDES

12. My freedom to choose my own occupation is very important to me.
13. It's the duty of people to do their jobs the best they can.
14. Business will do anything for a profit.
15. The greatness of America is based on business.
16. Competition between businesses makes for the lowest prices.
17. If only our economy were reorganized, there would be more than enough for everybody.

4. TECHNICAL INNOVATION AND SPECIALIZATION

18. Groups of individuals with specialized skills, working together, can produce better products than individuals working alone.
19. A company deserves its profits when they come as the result of doing the best job for less money.
20. We should use new machines whenever they can take the place of dirty work that people have to do now.
21. Businesses that make a new product take a risk; if people like their product, a business deserves its profits.
22. If you have a valuable skill, you'll get ahead in our society.

* Indicates reverse scoring item.

5. BUSINESS

23. There are practically no services which government can provide which businesses couldn't provide better.
24. Only the producer of a quality product at a fair price can survive in our competitive economy.
25. Most people like their jobs.
26. Government should listen more to what the business community has to say.
27. Business should be allowed to charge as much as people are willing to pay.
28. Most businesses won't sell products they think are unsafe.
29. Businesses could provide more jobs, goods and services if they didn't have to pay so much in taxes.
30. Advertising helps consumers to make intelligent choices.

6. THE ECONOMIC STATUS QUO

31. The situation of the average person is getting worse, not better.
32. America's wealth is far too unequally shared.
33. There are few real opportunities for the average person to start a business in America today.
34. We need a way to make incomes more equal in this country.
35. The way our economic system is set up, nobody has a chance to get ahead any more.
36. One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.

7. GOVERNMENT ROLE IN SOCIAL WELFARE

37. It is the responsibility of the government to take care of people who can't take care of themselves.

* 38. Taking care of the poor and the sick is the job of families and churches, and not the job of government.

39. The poor and the ill have a right to help from the government.

* 40. A person who cannot find a job has only himself to blame.

41. The unemployed shouldn't blame themselves for their situation; it's the fault of the economic system.
42. It should be the duty of government to be sure that everyone has a secure job and a decent standard of living.

* Indicates reverse scoring item.

8. ECONOMIC INTERDEPENDENCE

43. In our specialized economy, each person depends on the efforts of many other people for his or her economic well being.

44. Our society owes much to the contribution of business.

45. Resources are always limited, and we must make hard choices about the best way to use them.

46. Profits are essential to our country's economic health.

9. PRICE CONTROLS

* 47. It's not the business of government to control prices.

48. Companies should only be able to charge a government-controlled price for their products.

49. The government should decide which goods are produced.

10. WORK ETHIC

50. People who blame other people or "society" for their problems are just copping out.

51. If workers want higher wages, they must work harder and produce more.

11. UNIONS

* 52. We'd all be better off if unions were stronger.

53. Unions are too powerful.

54. Employers should have the right to hire non-union workers if they want to.

* Indicates reverse scoring item.

APPENDIX 5:

STUDENT POSTTEST QUESTIONNAIRE, WITH ITEM MEANS AND RESPONSE FREQUENCIES

NORC 4420
10/1984

DECK 01
1-4/
5-24/R

POSTTEST QUESTIONNAIRE FREQUENCIES

N = 1711
(excludes 88-case Posttest-only group)

I strongly disagree with the statement						I strongly agree with the statement	Don't Know
1	2	3	4	5	6	7	8

Thank you for your help! Earlier in the school year, you filled out a questionnaire that told us about your economic values and beliefs. That information will be part of an important study, from which we will learn more about the values of young people. We have a second, and similar, questionnaire for you to fill out now. Some of the questions will be the same as last time; others will be different.

On the next three pages there are statements that you may agree or disagree with. We're interested in learning about your feelings concerning these statements. All of them have to do with the American economy, or how we make, buy, and sell things. We are all part of the economy. Businesses and government are part of the economy too.

When you buy a record or ride on a bus or go to the dentist, you are taking part in the economy. The government takes part in the economy too, when it provides a service such as delivering the mail, or when it makes rules that businesses must follow. When you answer the questions below, it will give us a chance to learn what you feel about economic issues.

Here's an example:

_____ If I shop and compare before I buy, I can save money.

If you feel strongly that "If I shop and compare before I buy, I can save money," you would write a "7" in the space before that statement. If you disagree slightly you would write a "3" next to the statement. If your feelings are no stronger one way than the other, you would write a "4" next to the statement.

Maybe the statement is one you don't understand, or is about something you've never really thought about and have no feelings about. If so, write an "8" for "Don't Know" next to the statement.

There are no right or wrong answers here. Please just tell us how you feel, and what you believe, about each statement. Now let's turn to the next page--and begin!

ECONOMICS VALUES INVENTORY

DECK 01

I strongly disagree with the statement						I strongly agree with the statement	Don't Know
1	2	3	4	5	6	7	8

GRAND MEAN:

4.2	1.	The unemployed shouldn't blame themselves for their situation: it's the fault of the economic system.	25/
5.9	2.	Resources are always limited, and we must make hard choices about the best way to use them.	26/
4.8	3.	One of the bad things about our economic system is that the person at the bottom gets less help and has less security than in some other systems.	27/
3.6	4.	The average worker today is getting his or her fair share.	28/
4.4	5.	The average worker today is getting less than his or her fair share.	29/
6.4	6.	It's the duty of people to do their jobs the best they can.	30/
5.0	7.	America's wealth is far too unequally shared.	31/
4.2	8.	There are few real opportunities for the average person to start a business in America today.	32/
5.6	9.	The poor and the ill have a right to help from the government.	33/
4.7	10.	It is the responsibility of government to take care of people who can't take care of themselves.	34/
4.1	11.	Unions are too powerful.	35/
5.0	12.	We need a way to make incomes more equal in this country.	36/
5.7	13.	Profits are essential to our country's economic health.	37/
5.0	14.	Our society owes much to the contributions of business.	38/
2.6	15.	Being in business means taking unfair advantage of others.	39/
3.4	16.	The way our economic system is set up, nobody has a chance to get ahead any more.	40/
6.6	17.	My freedom to choose my own occupation is very important to me.	41/
5.8	18.	Competition between businesses makes for the lowest prices.	42/
5.0	19.	Businesses could provide more jobs, goods and services if they didn't have to pay so much in taxes.	43/
2.6	20.	It's foolish to do more than you have to in a job.	44/

I strongly
disagree with
the statement

I strongly
agree with
the statement

Don't Know

1 2 3 4 5 6 7 8

3.5 21. Business works best when there are few government regulations. 45/

4.6 22. Most companies don't give employees a fair share of what the company earns. 46/

2.3 23. Having the freedom to start my own business really means having the freedom to take advantage of others. 47/

3.7 24. Most companies give employees a fair share of what the company earns. 48/

2.8 25. It's no use worrying about the economy: I can't do anything about it anyway. 49/

5.6 26. Our economy needs more people who are willing to save for the future. 50/

5.7 27. A company deserves its profits when they come as the result of doing the best job for less money. 51/

5.3 28. If workers want higher wages, they must work harder and produce more. 52/

3.5 29. Companies should only be allowed to charge a government-controlled price for their products. 53/

2.5 30. Profit is a sign that someone is being taken advantage of. 54/

4.3 31. Advertising helps consumers to make intelligent choices. 55/

4.2 32. Most people like their jobs. 56/

3.0 33. Getting ahead is mostly a matter of luck. 57/

4.5 34. The situation of the average person is getting worse, not better. 58/

3.6 35. We'd all be better off if labor unions were stronger. 59/

5.2 36. If you have a valuable skill, you'll get ahead in our society. 60/

3.0 37. Taking care of the poor and the sick is the job of families and churches, not the job of government. 61/

3.9 38. It's not the business of government to control prices. 62/

4.5 39. Most businesses won't sell products they think are unsafe. 63/

4.5 40. It should be the duty of the government to be sure that everyone has a secure job and a decent standard of living. 64/

ECONOMICS VALUES INVENTORY

DECK 01

I strongly disagree with the statement — I strongly agree with the statement — Don't Know

1 2 3 4 5 6 7 8

5.1 41. We need government regulations to keep businesses from taking advantage of us. 65/

5.2 42. Government should listen more to what the business community has to say. 66/

3.2 43. A person who cannot find a job has only himself to blame. 67/

4.7 44. Business is a better provider of goods and services than is government. 68/

5.4 45. Employers should have the right to hire non-union workers if they want to. 69/

4.8 46. People who blame other people or "society" for their economic problems are just copping out. 70/

4.2 47. If the government was more involved in the economy, it would work better. 71/

3.6 48. If the government was less involved in the economy, it would work better. 72/

5.5 49. Groups of individuals with specialized skills, working together, can produce better products than individuals working alone. 73/

* 5.1 50. The Federal government should do more to reduce the gap between the incomes of poor people and the incomes of the wealthy. 74/

* 4.1 51. Bit by bit over the years, the government has been taking our basic freedoms away from us. 75/

* 3.1 52. The Federal government should not concern itself with reducing income differences between the wealthy and the poor. 76/

77-79/R

80/1

*These three questions were added to the Posttest EVI in an attempt to provide an "objective" or independent check on respondents' ideological self-description. However these three items were plagued with high "Don't Know" and "indifferent" (point 4 on the 7-point scale) responses. For Q. 51, the combined missing and indifferent values approached 40%. Thus, the ideology items appeared to replay the fundamental difficulty of the liberal-conservative scale itself.

BEGIN DECK 02

ECONOMIC FACT QUESTIONS

Up to this point you have been telling us your opinions about economic issues. There have been no right or wrong answers, just your personal point of view.

For the questions below, however, we'd like you to "switch gears." These statements do have right and wrong answers. They are not a test. We just want to find out what kind of understanding students in your grade have about economics.

So please, read each item and its answer categories carefully, and do your best to pick the one best answer. PUT AN "X" NEXT TO THE BEST ANSWER.

1. Those who believe that people should be taxed according to their ability to pay would be most likely to favor: 5/

_____1. An excise tax. _____3. A progressive income tax.
_____2. A general sales tax. _____4. A residential property tax.

2. As more sewage processing plants are built and put into operation, more fertilizer may be produced as a by-product. If that happens, fertilizer will be: 6/

_____1. Wanted more. _____3. Less expensive.
_____2. More expensive. _____4. Wanted less.

3. When Communist China builds a canal entirely with hand labor, we can probably assume that: 7/

_____1. Capital is relatively scarce there.
_____2. Canals built by hand are better.
_____3. Labor is relatively scarce there.
_____4. They have an abundance of natural resources.

4. Inflation can be defined as a period of: 8/

_____1. Increasing unemployment. _____3. Rising prices.
_____2. Shortage of money. _____4. Failing banks.

5. Most of the money that American businesses receive by selling their products or services is paid as: 9/

_____1. Profits to the owners. _____3. Rent to property owners.
_____2. Salaries to employees. _____4. Interest on debts.

6. What is the reward of those who take the investment risk in a business? 10/

_____1. Salaries. _____3. Profits.
_____2. Wages. _____4. Rents.

7. In a market economy such as the U.S., most goods are produced by: 11/

_____1. Consumer cooperatives _____3. Government industries
_____2. Profit-making businesses _____4. Nonprofit corporations

DECK 02

STUDENT INFORMATION 12/R

1. Did you use the textbook Our Economy this semester? 13/

55% 1. Yes 45% 2. No

2. Are you enrolled in Junior Achievement's "Project Business"? 14/

9.8% 1. Yes 90.2% 2. No

3. Please fill in the code or last name which stands for your social studies teacher: 15-19/

_ _ _ _ _ _ _ _ _ _

STUDENT BACKGROUND AND PREFERENCES 20/R

This final section is about you. Information about your economic attitudes and values will mean more if it can be related to information about some of your other views and experiences. Remember, your answers are completely private: no one from your school will ever see them. And remember too that your answers to this section are voluntary. The information which you supply here will be extremely valuable to this study. But if there is any question which you do not want to answer, you may skip it.

1. Some people are economically much better off (have better jobs, income, and housing, for example) than others. The following factors have been suggested as explanations for why such differences between people come about. Please give your opinion about the importance of each one. The more important you think a factor is, the higher the number, up to 7, that you will use. The less important you think a factor is, the lower the number.

NOT VERY IMPORTANT						VERY IMPORTANT	Don't Know
1	2	3	4	5	6	7	8

How important is each factor below in explaining how economically well off (successful or unsuccessful) an adult individual is?

3.678	a.	luck (good luck, bad luck)	21/
5.841	b.	the number of jobs available in our society	22/
5.993	c.	a person's level of intelligence	23/
3.904	d.	a person's family background (for example, rich parents and childhood advantages: poor parents, disadvantages)	24/
6.274	e.	a person's willingness to work hard	25/
5.444	f.	the number of well-qualified persons competing for jobs	26/
5.943	g.	personal initiative (for example, will power, determination)	27/
2.836	h.	a person's race or ethnicity (advantage--or disadvantage [for example, discrimination] because of the group one comes from)	28/
6.265	i.	a person's education and skills	29/

DECK 02

2. What political party do you lean toward? (Check one only.) 30/

20.1% 1. I lean strongly toward the Republicans.
20.7% 2. I lean slightly toward the Republicans.
12.3% 3. I lean slightly toward the Democrats.
15.6% 4. I lean strongly toward the Democrats.
31.3% 5. I lean neither toward the Republicans nor the Democrats.

3. Sometimes people talk about their political views in terms of the labels "liberal" and "conservative." Where do you place yourself on the seven-point scale below? (Please check one answer only.) 31/

2.8% 1. Very liberal
6.8% 2. Liberal
6.2% 3. Slightly liberal
22.3% 4. Moderate, middle of the road
6.9% 5. Slightly conservative
6.2% 6. Conservative
1.9% 7. Very conservative
36.5% 8. No opinion or don't know
10.9% 9. Missing — left blank or explicitly refused to answer question.

4. Whom did you favor in the November presidential election? (Check one only.) 32/

50.2% 1. Ronald Reagan
35.3% 2. Walter Mondale
5.9% 3. Other
8.6% 4. Don't know

5. How interested were you in the election campaign? 33/

23.7% 1. Very interested
51.5% 2. Somewhat interested
24.8% 3. Not very interested

6. How often do you watch the evening television news? (Check one only.) 34/

20.3% 1. Nightly
22.5% 2. More than half the time
34.0% 3. Sometimes
18.9% 4. Seldom
4.4% 5. Never

DON'T FORGET THE LAST PAGE!

DECK 02

7. How often do you read the local and national news sections of the newspaper? (Check one only) 35/

percent:

10.9 1. Daily
11.8 2. More than half the time
29.8 3. Sometimes
32.2 4. Seldom
15.3 5. Never

8. In your opinion, which of the following groups of people are more likely to be well informed about important issues? Please rank these groups in order, with a "1" for the best informed, a "2" for the next best informed, and so on. Be sure to assign a different rank (1-6) to each of the six groups.

rank and mean:

1st............1.689 the media (television and newspaper reporters) 36/
6th............5.291 your fellow classmates 37/
2nd............2.228 leaders of the business community 38/
3rd............3.588 your family/parents 39/
5th............4.314 clergy (ministers, priests, rabbis) 40/
4th............3.694 teachers 41/

9. Which of the following do you regard as your best sources of information about the issues that matter to you. Please rank these sources in order, with a "1" for your best source, a "2" for the next best, and so on. Be sure to assign a different rank (1-6) to each of the six sources.

rank and mean

1st.........2.089 the media (television and newspaper reporters) 42/
4th.........3.766 your fellow classmates 43/
5th.........4.211 leaders of the business community 44/
2nd.........2.533 your family/parents 45/
6th.........4.853 clergy (ministers, priests, rabbis) 46/
3rd.........3.353 teachers 47/

**10. Compared to other 9th grade courses, how interesting a subject do you consider Economics to be? (Check one only) 48/

6.0% 1. Very interesting
17.4% 2. Somewhat above average in interest
44.2% 3. Of average interest
20.0% 4. Somewhat below average in interest
12.5% 5. Very uninteresting
____ 8. No opinion, or don't know (excluded from analysis; less than 1%)

** 11. Compared to other 9th grade courses, how important do you consider the subject Economics to be? (Check one only) 49/

30.2% 1. Very important
46.0% 2. Of some importance
17.0% 3. Somewhat unimportant
6.8% 4. Very unimportant
____ 8. No opinion, or don't know (excluded; less than 1%)

**Q 10 and Q 11 asked of Minneapolis respondents only (at Pretest and Posttest).

THANK YOU FOR YOUR OPINIONS!
THEY DO COUNT!

50/7
51-75/R
76-79/6620
80/2

"END OF DOCUMENT"